Infor Enterprise Modeler User Guide

Important Notices

Trademark Acknowledgements

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Table of Contents

About this document

This document gives an overview of the Enterprise Modeler's functionality within the Infor LN applications. Furthermore the concepts and procedures are explained. This manual guides you through every step of enterprise modeling, resulting in a business model suitable to be used at run-time.

About this guide

The Process Modeler Workbench is not part of this guide. For more information about the Process Modeler Workbench, see the online Help and the *Infor LN Process Modeler Workbench User Guide (U9871)*

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Chapter 1
Introduction

1

Introduction

This chapter describes the main functions and objectives of the Dynamic Enterprise Modeler, or DEM Tool. It provides information about its function within LN and the relationships between the Dynamic Enterprise Modeler and other ERP modules. The major building blocks in the Dynamic Enterprise Modeler and its global setup requirements are also discussed.

The DEM Tool in LN

This section describes the relationships between the Dynamic Enterprise Modeler and the LN application packages. The concept of the DEM is also explained.

The Dynamic Enterprise Modeler's functionality

Unlike the LN application packages, you can use the Dynamic Enterprise Modeler before the information system is operational. Therefore, you can use the DEM Tool to create business models with which you can implement the LN application packages.

If an organization decides to implement a new information system using LN applications, the Dynamic Enterprise Modeler can be used to structure the selection process and perform the actual implementation and optimization of the information system.

Complete these three phases:

- **Selection phase**
  This phase is used to develop a vision of the implementation and optimization of the LN modules required for the new information system.
- **Implementation phase**
  This phase is used to implement the LN information system according to the vision made in the selection phase.

- **Optimization phase**
  This phase is used to optimize the operational information system implemented in the second phase.

During the three phases, the Dynamic Enterprise Modeler functions as a decision support system to develop a vision about:

- To functionally structure an organization.
- Organizing the business processes of the organization.
- Integrating the information system with these business processes.

The DEM Tool assists the implementation of the LN packages according to the vision developed with the Dynamic Enterprise Modeler.

After the information system is implemented, the Dynamic Enterprise Modeler can be used to monitor the critical success factors of an organization.

These roles are carried out:

- During the *Selection phase*, the Dynamic Enterprise Modeler can function as a decision support system by visualizing the effects of decisions on the information system and its users.

  For example, decisions regarding business functions or business processes can affect the number of applications, and other types of activities, that must be implemented. Consequently, this can affect the workload of the employees who carry out the activities.
- During the *Implementation phase*, you can use the Dynamic Enterprise Modeler to assist in the actual implementation of LN, and other applications.

In the implementation phase the Dynamic Enterprise Modeler can be used to:

- Set the LN parameters and package settings.
- Generate the LN users based on the employees defined in DEM. These people are going to use the LN packages.
- Create the Process Browsers and the authorizations for the employees.

The Process Browser is a menu tree in Web UI or LN UI. It is the DEM runtime user interface, and consists of a window from which employees can start the activities for which they are authorized.

In the Process Browser, you see roles by employees; linked to these roles are Business Processes with activities.

Optimization functionality of the Dynamic Enterprise Modeler

The Dynamic Enterprise Modeler is dynamic because it lets you model future organizational changes that require the implementation of new or changed business processes and business functions.

Use the Dynamic Enterprise Modeler during the optimization phase, to complete these tasks:

- Make additional decisions in regard to LN components that must be optimized.
- Assist in the actual implementation of the required optimizations.
- Monitor the current status of the critical success factors.

The roles of the Dynamic Enterprise Modeler

Role of the DEM	Selection phase	Implementation phase	Optimization phase
Decision support system	X	X	X
Assisting implementation		X	X
Monitoring status critical success factors			X

Based on the three roles of the DEM, these relationships can be distinguished between the Dynamic Enterprise Modeler and other parts of LN:

- Use DEM tool to set the parameters of the LN packages.
- The DEM tool uses the user-management functionality of LN Tools. Here, the LN users that are required are defined when the Process Browsers are created for the employees.

The Dynamic Enterprise Modeler concept

The Dynamic Enterprise Modeler has these roles:

- Decision support system
- Assisting in implementation
- Monitoring of the critical success factors

These roles can be combined in one implementation assisting objective.

Note

The term *implementation assisting objective* does not actually cover the contents. If the system is operational, the Process Browsers created in the implementation phase can be used as a means to work with the functionality. It provides a road map that guides the user through the authorized functionality. The functionality can be started from this road map.

To achieve the implementation assisting objective

The first objective of the Dynamic Enterprise Modeler is accomplished by modeling the business processes that represent the desired situation of an organization.

Each time a model is created for a different organization, a new model is built that represents the desired situation for that organization.

A DEM Content Pack is created, containing best-practice Scenarios (Business Control Diagrams) and Business Processes. With this DEM Content Pack you can speed up your selection, implementation and even optimization process. An advisory spreadsheet is available with a content selection advice per (micro) vertical. Options (Static Conditions) are available to further optimize best-practices for each (micro).

The Dynamic Enterprise Modeler's structure

Dynamic Enterprise Modeler (DEM) contains these building blocks:

- **Master Data**
- **Repository 1**
- **Enterprise Structure Models**
- **Business Models**
- **Data Models**

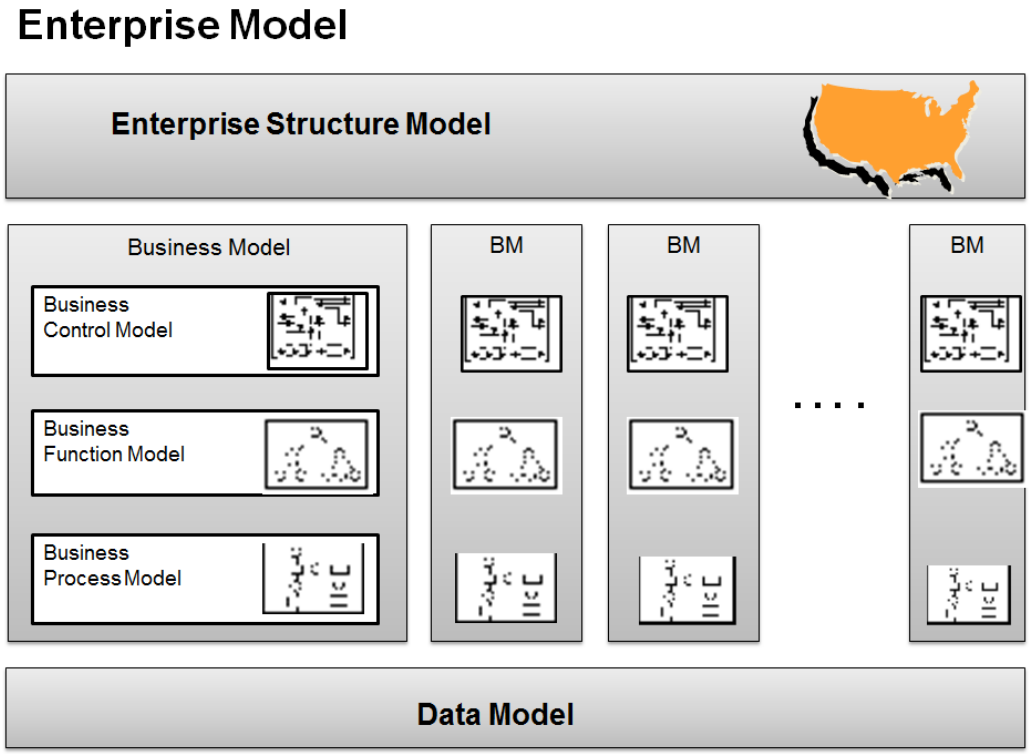
To build an enterprise model according to the concept of the Dynamic Enterprise Modeler, the building blocks must be used in a certain order.

Note

Before an enterprise structure model or business model can be created, the necessary master and repository data must be defined.

The first step is to define a version, in the master data, that will serve as the current modeling version. Here, the model items, enterprise structure model, and business models can be created.

The model items used to create business models must be defined in the repository. This data includes business control diagrams, business functions, business processes, and rules.



Enterprise Model

The second step is to create enterprise structure models and define one model as the operational enterprise structure model. This enterprise structure model reflects your current organization. It is a graphical representation of the different sites in a multi-site environment and can be used in discussions about the multi-site structure. For the actual setup of companies and enterprise units, see *Infor LN User Guide for Setting Up a Company (U9503)*.

Every site is represented by an enterprise unit, which supports the concept that you can divide a logistical company over multiple countries.

An enterprise unit is a group of entities used in the LN system.

Entities can be departments, work centers, warehouses, and projects. Also, a business model can be linked to an enterprise unit. At run time, the operational enterprise-structure model is used by the applications to determine prices and currencies when goods are transferred from one enterprise unit to another.

The third step is to acquire the DEM Content Pack that represent the best-practice situation of organizations and can be configured to your needs. The DEM Content Pack consists of business control model diagrams (scenarios) and static conditions (options) and business processes.

The fourth step is to create the project models that represent the situation of one specific organization. Project models are similar to reference models, except they are specific to one organization. In project models, you can define business function variants that represent different ways to accomplish a business

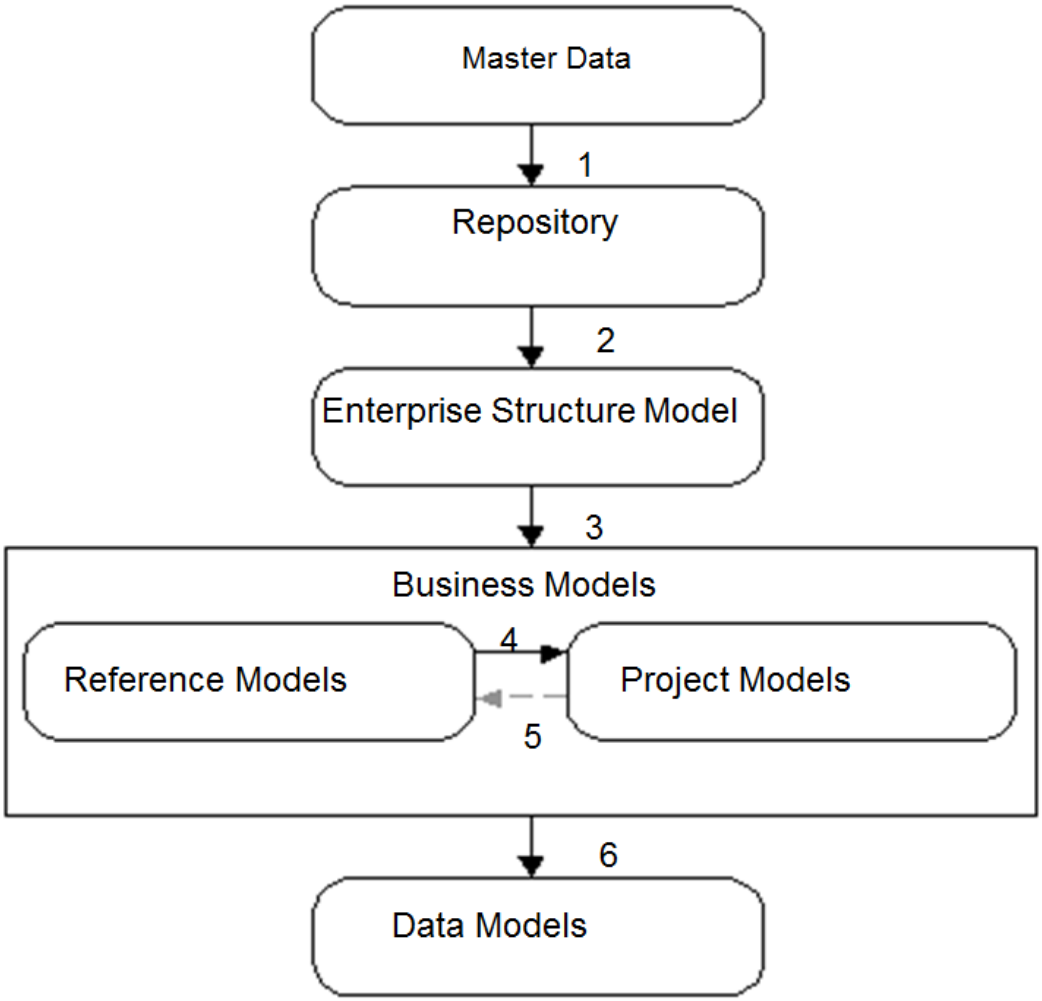
function. For these variants, optimization relationships can be defined; these represent the recommended paths that must be followed when switching from one work method to a more efficient method.

The business function models and business process models of the project models can be built as follows:

- You can copy business control diagrams, business functions and business processes from the repository in which these model items were created.
- You can modify business functions and business processes based upon the content of the acquired DEM Content Pack.

The last step (optional) is to create a data model that gives information about the physical/logical data model of the LN package combination to which the enterprise model you have created applies. It describes the permanent storage components on multiple abstraction levels and aims to show the meaning and relevance of data for a company.

The relationships between the components of the Dynamic Enterprise Modeler are displayed in this diagram:



The flow between the building blocks in the DEM

- Lines 1, 2, 3, 4, and 6 show the described order
- Line 5 shows an option you use if a newly created project model describes the best-practice situation within a certain organization typology so accurately that the project model can be used as a reference model in the future.

Chapter 2
Master Data

2

Introduction

How to set up the Master Data to build an enterprise model. This chapter identifies and explains the mandatory and optional sessions in the Master Data.

The place and function of Master Data

The Master Data is mainly used to set up an operational environment.

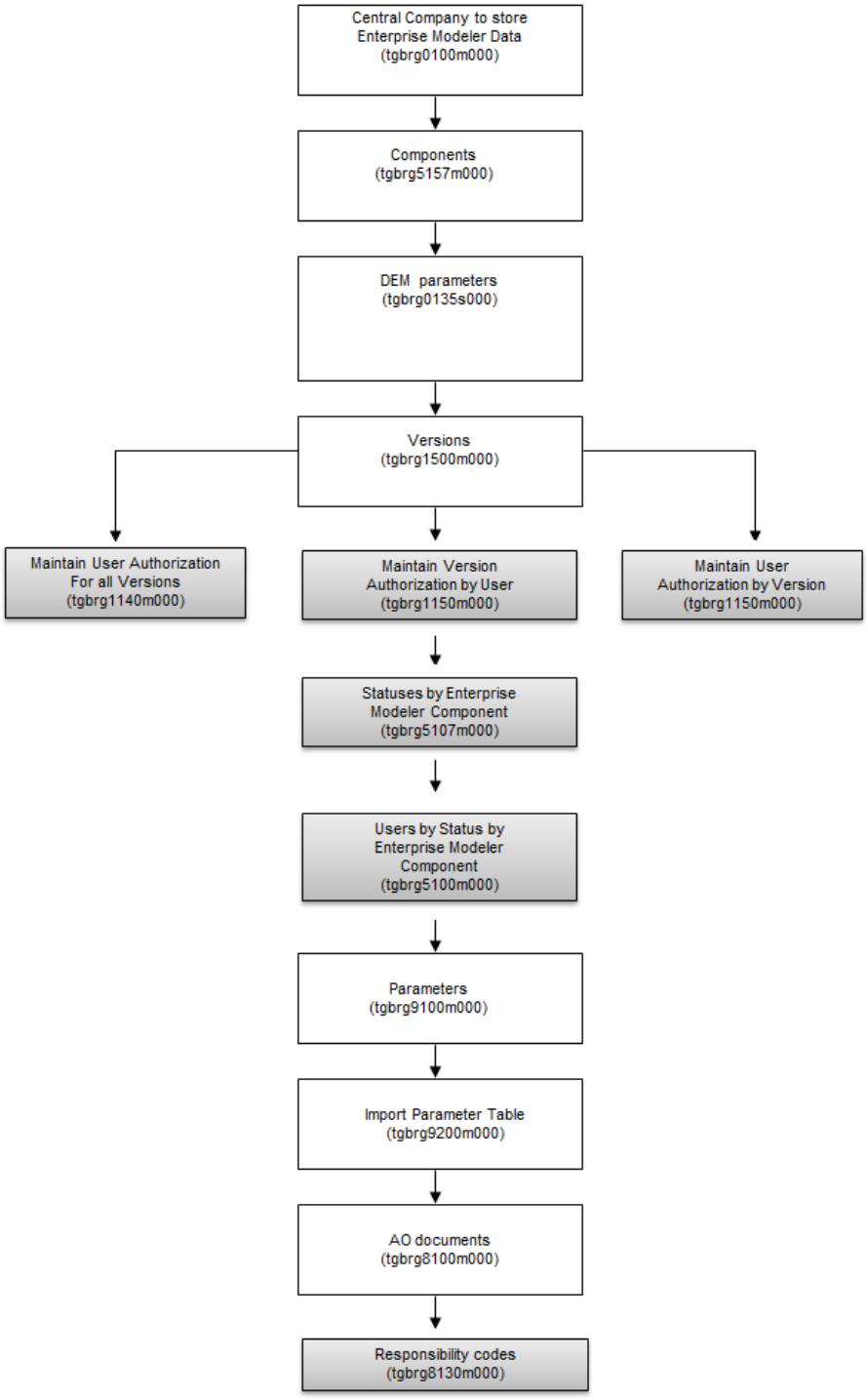
You can create and maintain the enterprise modeler building blocks, such as business processes, employee groups, and business control diagrams. In the Master Data you can define versions, components, and parameters.

The Master Data contains sessions that deal with version authorizations, parameter maintenance, and responsibility codes.

You can add master data while modeling, but some of the data used in the models must first be defined in the Master Data.

This does not mean each time a business model is created new master data must be defined; the master data already defined can be used in an unlimited number of business models.

Master Data procedure



Master Data procedure

Central Company to store Enterprise Modeler Data (tgbrg0100s000)

To start the Central Company to store Enterprise Modeler Data (tgbrg0100s000) session:

- Specify the password `BAAN` or `DEM` (in capitals)
- Before you model any model item, first select a company in which all enterprise-modeler data is stored.
- If you do not specify a company in this session, you cannot create or maintain any business process, business function, or other model item.

Note

Do not select a company not linked to your current package combination.

In the Central Company to store Enterprise Modeler Data field:

- Select a company
- Click **Save**

If you click **Update all Comp**, all DEM data for all companies of the current package combination will be stored in the central company you have selected.

Example

Package combination: B61a4new

Companies linked to the package combination: 900, 901, 902, 903

Central company: 902

If you click **Update all Comp**, the enterprise modeler data is stored in company 902, regardless of which company of package combination B61A4new you work.

To have more than one central company:

- Package combination: B61a4new

  Companies linked to the package combination: 900, 901, 902, 903

  Central companies: 900, 902
- Change your current company to company 901.
- Start the Central Company to store Enterprise Modeler Data (tgbrg0100s000) session. Select *company 900* as the central company.
- Click **Save**
- Click **OK**

Repeat the same procedure. Change your current company to 903. Select 902 as the central company.

Components definitions

The next step is the definition of components you want to use throughout the modeling process.

A component is a collection of applications, or just one application, and their related data that is needed to interact with other applications.

A component is a shell that accommodates the applications that can be linked to activities in business processes to define the work and sequence of work that must be carried out.

The definition of the applications is important in the component procedure, because the definition of the applications determines the operations that must be completed.

Components (tgbrg5157m000)

To create and maintain components, use the Components (tgbrg5157m000) session.

If you define one of the LN releases as a component, and therefore all the LN sessions of that release as applications, you must select the correct release in the **Component Type** field.

To define a component:

- Click *New*
- In the **Component** field, specify the name of the component.
- In the **Component Release** field, specify the release, which is the identification of the issue of a component.
- In the **Component Icon (16x16)** field, select an icon that represents the component in the Process View, Enterprise Modeler Editor, and Process Browser. In the Process View, and the EME, the icon will be placed next to the activity of type application so you can distinguish the component to which the application belongs.
- In the **Component Type** field, select the identification for the component for application conversion purposes.
  - Select the correct LN release in the case of an LN component.
  - In case of a non- LN component, select **Other**

This table shows information about the options you can use when creating or modifying a component:

Key fields for the Components (tgbrg5157m000) session

Field	Description
Running ERP Component	If this check box is selected, the component is the LN component that provides the LN sessions at run time. For more information, see the DEM Parameters (tgbrg0135s000) session.

On the **Support for** tab of the Components (tgbrg5157m000) session, you can select **Authorizations**, such as display and print.

This is only applicable for the Running LN component, because it is meant for specifying the limitations to the authorization types during modeling later on.

Applications by Component (tgbrg5155m000)

When you have created the components you want to use during the modeling of business processes, you must fill these components with applications.

In the case of an ERP LN component, this means the applications are LN sessions.

To fill a component with LN sessions, use the Import Applications from Running ERP Component (tgbrg5255m000) session.

You can select a range of applications from the Sessions (ttadv2506s000) session and import them into the component.

In case of a component other than LN, a URL to the specific application can be inserted on activity level in the business process.

To manually link an application to a component:

- Click *New*
- In the **Application** field, specify the application. If the component is the running LN component, use the LN session code.

Key fields for the Applications by Component (tgbrg5155m000) session

Field	Description
Main Application	If you select this check box, the application can be started directly. Only main applications can be linked to an activity or support application.

Importing Applications from running ERP Component

To start Import Applications from Running ERP Component sessionon the appropriate menu of the Applications by Component (tgbrg5155m000) session:

- Click Import Applications from Running ERP Component (tgbrg5255m000)
- Use this session to fill the running ERP component with sessions from the Sessions (ttadv2506s000) session.

The range of LN sessions you select is copied from the table ttadv200 into table tgbrg555, so the sessions you import can be used for modeling purposes.

The LN sessions you import are stored in the Applications by Component (tgbrg5155m000) session.

To import a range of LN sessions into a component, complete the following steps:

- In the **Application** field, select the range of sessions you want to import.
- Click **Import**

Key fields for the Import Applications from Running ERP Component (tgbrg5255m000) session

Field	Description
Overwrite existing values (except arguments and Texts)	■ If you select this check box the applications you import are overwritten if they already exist for the combination of the component and component release. ■ Texts and arguments of the existing applications are never overwritten when the import is carried out.
Remove the applications that no longer exist.	If you select this check box, the print checkbox will also be selected. The applications that meet the following conditions are removed: ■ Fall within the range of applications you specify in the **Application** field. ■ Appear in table tgbrg555, but not in table ttadv200.

Test Run	If you select this check box, a simulation of the import is carried out; the results are printed to a specified device.
Added Applications	If you select this check box, the applications that are added to the component are printed.
Changed Applications	If you select this check box, applications that were modified since you last imported them are printed.
Removed Applications	If you select this check box, the applications removed from the Applications by Component (tgbrg5155m000) session are printed.

Subapplication Modeling

Subapplication modeling only works for Running ERP. Within DEM, you model authorizations for end-users through specifying an authorization type with the modeled activities, and through linking Roles and specifying an authorization type with that link.

The result is that the end-user has a customized DEM menu, the Process Browser, which only contains the activities for which the end-user is authorized.

When a session is started from the Process Browser, the modeled authorization type is used. This ensures that a session is started in display mode; therefore, the user cannot change anything, but only look at the data.

From within an LN session, a lot of other LN sessions can be started. By default, these sub-sessions, known in DEM as sub-applications, inherit the authorization type of the main application, LN session. For some sub-applications that will not be acceptable. Within DEM, it is possible to model an exception for those situations.

Example

You model for the Sales Clerk that they have *'Full Authorization'* for the Application " `tdsls4500m000` ", but only *'Display Authorization'* for the sub-application " `tcibd0501m000` ", which can be started from the main application. This ensures the Sales Clerk can select Items, but cannot define or change Item data.

When an end-user works with the Process Browser with LN, all the authorizations for sessions are controlled by DEM, and the authorization for sessions specified within Tools are ignored.

Note:

Next to the sessions reachable from the menu, you can authorize sub applications. Right-click an activity and select 'Sub Applications'.

This session is called Subapplication Modeler (tgbrg5124m000).

With this session, you can model the subapplications with an activity from within the process view in the Process Modeler Workbench.

The following sessions can be found in a new menu, which is a sub-menu of the *'Application Components'* menu:

Generate Sub-apps by Application based on Tools session tables

With the session Generate Sub-apps by Application based on Tools session tables you can automatically fill the sub-application table.

The entries are searched using the Tools information about the LN sessions. More details about the use of the session are present as online help within the session.

The result of this session is visible in the Subapplications by Component Application (tgbrg5163m000) session.

Global change of Sub-application Modeling

This session Global change of Sub-application Modeling, adds a certain sub-application as a modeled sub-application to every activity, from which it can be reached as a sub-application.

For more details, see the help within the session.

Print Subapplication authorizations (tgbrg5423m000)

The session Print Subapplication authorizations (tgbrg5423m000) can be used to print the result of the situation regarding the sub-application modeling. For more details, see the help within the session.

Copy Role - Subapplications by Component Application (tgbrg5228m000)

The session Copy Role - Subapplications by Component Application (tgbrg5228m000) session is working on activity level.

You can choose to work in the repository, or within a certain Project Model. It is possible to copy the information already modeled with a certain activity to another activity.

Analyzing of modeled Subapplications (tgbrg5127m000)

The session Analyzing of modeled Subapplications (tgbrg5127m000) session is made for analyzing the current modeling situation.

Subapplications by Application (tgbrg5154m000)

For every application, you can define one or more subapplications.

A subapplication can be started from another application, and for which a different level of authorization can be assigned in the business process model compared to the main application to which it is linked.

To link one or more subapplications to an application, use the Subapplications by Application (tgbrg5154m000) session.

You only need to define subapplications if you want to assign a different level of authorization to the subapplication in comparison to the main application to which it belongs.

An option is added to the appropriate Menu to start the session Generate Sub-Apps by Application Based on Tools Session Tables (tgbrg5258m000).

Subsessions by ERP Session (tgbrg5162m000)

To start Subsessions by ERP Session (tgbrg5162m000) session, on the appropriate menu of the Subapplications by Application (tgbrg5154m000) session:

- Click Subsessions by ERP Session (tgbrg5162m000)
- Use this session to define one or more LN sessions as subapplications.
- This session displays, per LN session, the LN sessions you can define for each subapplication.

To define an LN session as a subapplication:

- Select the LN sessions you want to define as a subapplication.
- On the appropriate menu, click **&Add selected sessions as Subapplication**.
- The selected LN sessions are added as subapplications to the Subapplications by Application (tgbrg5154m000) session.

You cannot select a session and add it to the list in session Subapplications by Application (tgbrg5154m000).

This functionality is taken over by session Generate Sub-Apps by Application Based on Tools Session Tables (tgbrg5258m000).

Start this session from the appropriate Menu in session Applications by Component (tgbrg5155m000).

DEM Parameters

Set the parameters for your DEM environment and determine which LN component provides the applications for run time use of the business processes.

To maintain the data in this session you must specify a password. The standard password for this session is `BAAN` or `DEM`.

To set your DEM parameters:

- In the **Main Project Model** field, select the enterprise structure model to become the operational enterprise structure model. This enterprise structure model reflects the transactions within the organization.
- In the **Component** field and **Component Release** field, select the LN component and component release. This combination provides the applications used at run time.
- Click **Save**.

Key fields for the DEM Parameters (tgbrg0135s000) session.

Field	Description
Use Employee - Project Model link	■ Always select this field; it is mandatory for Web UI and LN UI. ■ If this check box is selected, the employees must be linked to the project model by the Employees by Project Model (tgbrg8140m000) session to create the Process Browsers.
Evaluate Static Conditions	If you select this check box, the static conditions are evaluated and applied in the Process Browser.
Directory for DEM Version Dumps	The default file in which a version dump is stored if you use the Export Version Dump (tgbrg1235m000) session.

Versions

The parameters for your modeling environment are defined and you created the components that can be used in the modeling process.

The next step is to define one or more versions in which you can create the model items you need to build a business model.

To make enterprise structure models, business models, and related repository model items uniquely identifiable, you must model them in a specific, user-definable version. Versions can be derived from other versions.

A new version, which is derived from a source version, includes all the models and model items of the source version without copying them to the new version. Therefore, any modifications made in the source version, even after the derived-from structure has been defined, will apply to the new version.

Modifications in the new version only apply to that version.

Version dependency of model items.

Version-dependent model items	Version-independent model items
Business control diagrams	Responsibility codes
Business functions	AO documents
Business processes	All categories
Wizards	Employees
Reference models	Employee group types
Project models	
Roles	
Static conditions	
Dynamic conditions	
Rules	
Utilities	
Employees (through project models)	
Employee groups	

Versions (tgbrg1500m000)

To create new versions or to maintain existing ones, use the Versions (tgbrg1500m000) session.

You can also use this session to define data such as the version from which the new version was derived, the status, and the owner.

To define a version:

- Click *New*
- In the **Version** field, specify a name for the version
- In the **Status** field, select the status for the version Choose one of the following statuses:

- **Developing**
  One or more model items in this version are still being worked on.
- **Finished**
  All model items in this version have been developed and can be used.
- **Expired**
  All model items in this version can no longer be used.

- In the **Owner** field, select the LN user who has created the version, or is responsible for the version.
- Click **Save**

Key fields for the Versions (tgbrg1500m000) session

Field	Description
Derived-From Version	If applicable, select a version from which the version you are creating is derived.
Effective Date	The date when the version becomes effective.
Finish Date	The date when the version can no longer be used.
Expiry Date	The date when the status of the version was set to Expired.
License Expiry Date	Displays the expiration date of the license code. After this date, a new license key must be acquired from Infor.
Standard	If this check box is selected, the version is developed for a customer. If this version is for internal use only, clear this check box.

Note

The dates you specify in the **Effective date** field and the **Finish Date** field are purely informative.

If a new version is created, a message appears with the question whether the authorization mechanism should be used for this new version. If you answer:

- **Yes**, you are authorized for this new version.
- **No**, version authorization is not generated at this point.

At a later point, you can still generate authorizations. Until then, everybody is authorized for that version. For more information on version authorizations, see the version authorization section.

In this browser you can see which versions are interrelated, and for which versions you are authorized.

Version structure

Version structure

The version of the business models and their model items are not related to the different versions, releases, and customisation of the different LN software packages.

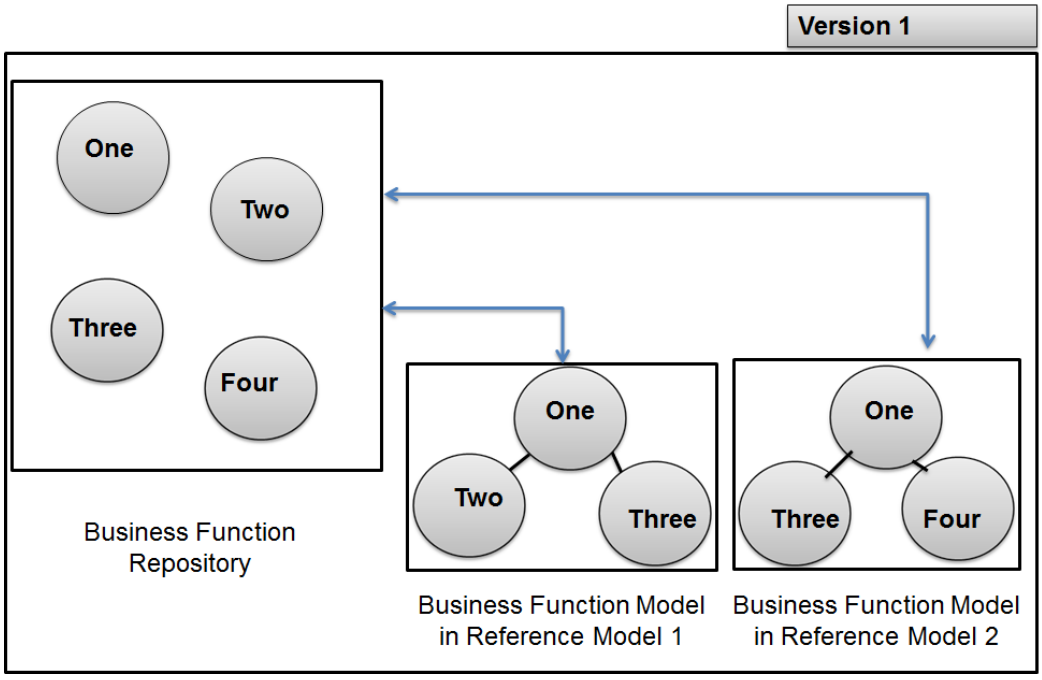
To create reference models and project models, use links to model items, such as business functions and business processes, which have been defined in the repository in a certain version. Therefore, to change the description of a business function referred to as *One*, which is used in one reference model, you can only do this in the repository.

This means that if this business function is also used in a number of other reference models or project models, and the description is changed in the repository, this change will be automatically implemented in all the reference and project models of the same version.

Example

If you change *One* into *Ten*, this change is implemented in both reference models.

This is a problem if you only want the change to be implemented in reference model 1. The dotted lines indicate that the descriptions of business functions in reference and project models are retrieved from the repository.



Changing the repository without version management

This problem is solved through version management. In the example shown in, you must define a new version derived from the version that was being used.

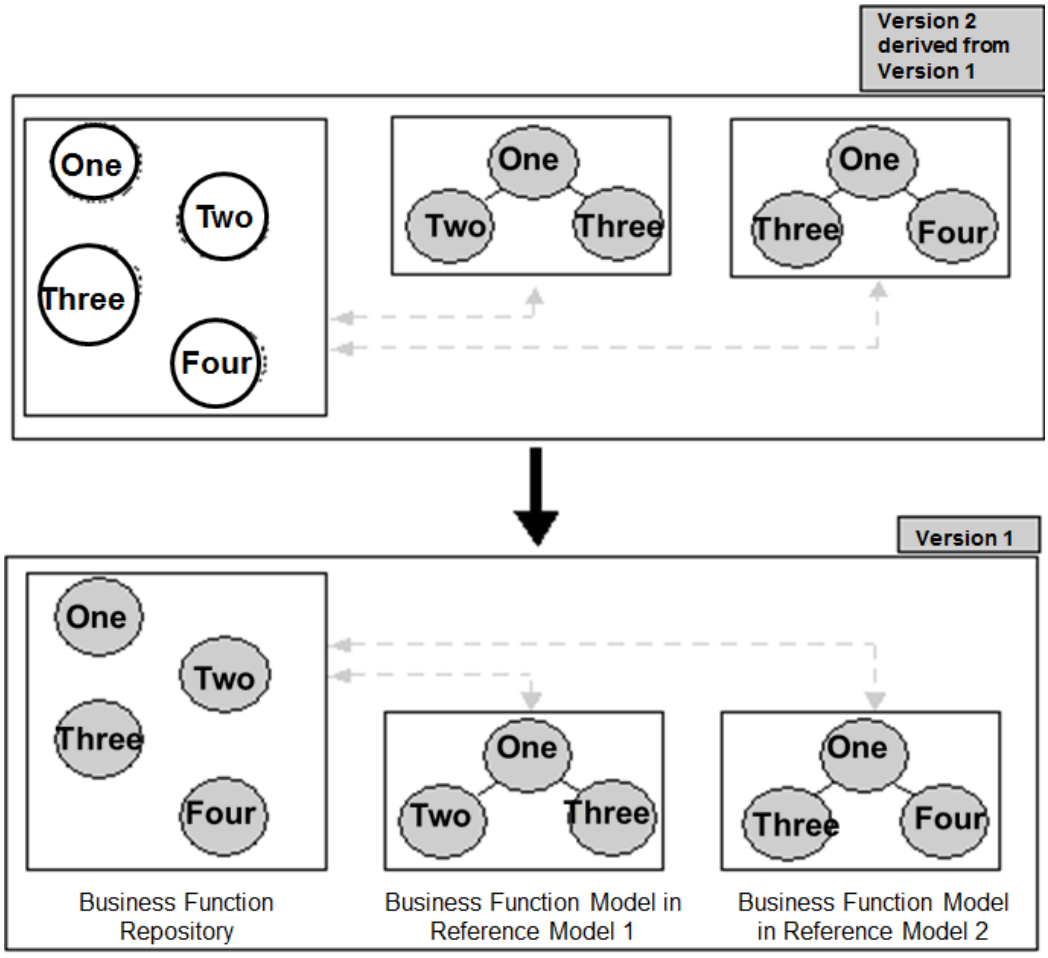
When you define this version, the model items of the previous version, including the repositories, reference models, and project models, can be used, although they are not physical copies and only available through a link.

In the example shown, the descriptions and places of the business functions in the repository of Version 2 are retrieved from the repository of Version 1.

The descriptions of the business functions in both reference models of Version 2 are retrieved from the repository of Version 2. Therefore, they are indirectly retrieved from Version 1 because of the derived-from structure.

The place of the business functions in the reference models of Version 2 are derived from the reference models of Version 1. Therefore, nothing is stored in Version 2, except for the link to Version 1.

This situation is displayed below. The white circles in the repository of Version 2 indicate they cannot be modified, because they are only physically available in Version 1.



Creating a derived-from version.

After a new version has been created, you can change the description of the business function. In this example, the description *One* in Reference Model 1 of Version 2 must be changed into *Ten*.

You can only change model items if they belong to your current modeling version. Because the description of a business function used in Version 2 must be changed, your current modeling version must be set to Version 2.

To do this, use the Current Modeling Version of Users (tgbrg1510m000) session, as described in the Repository chapter.

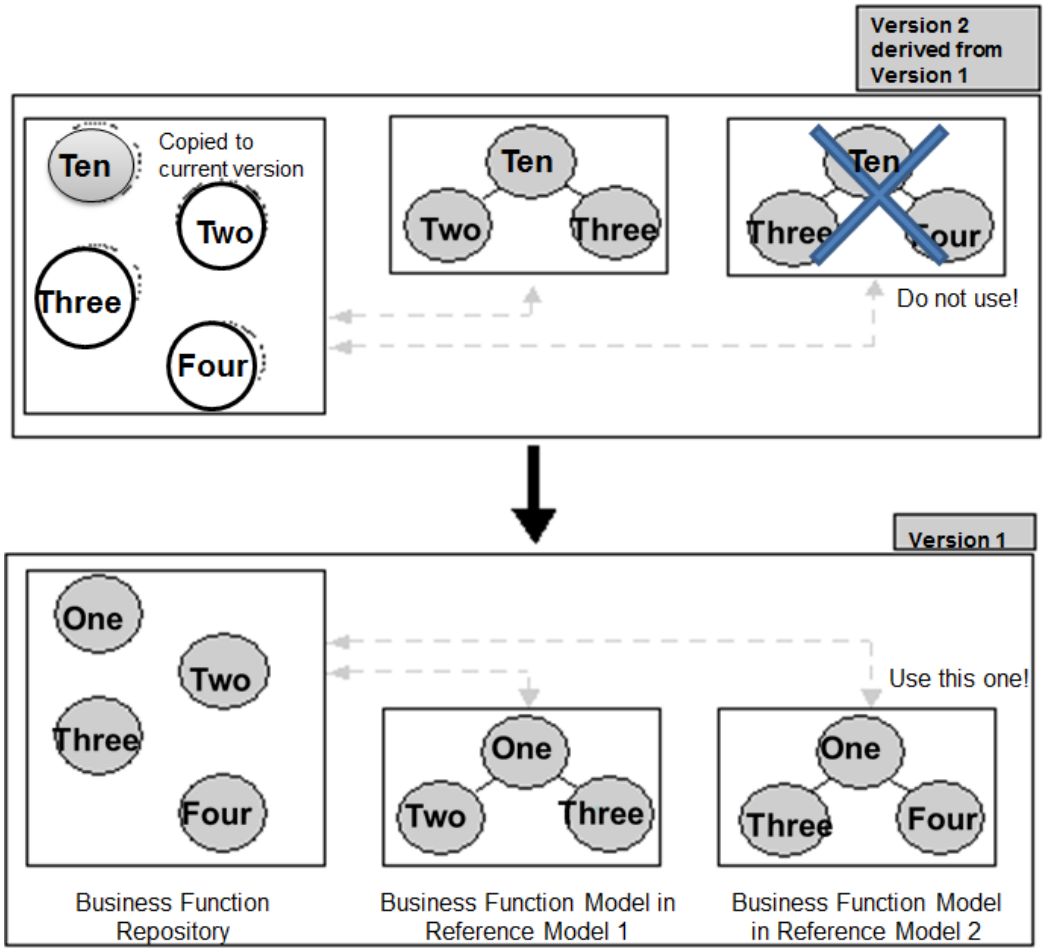
- Before description *One* can be changed to *Ten*, you must copy the business function to the current modeling version, which is Version 2, because the business function cannot be changed in Version 1.
- Copying a model item to your current modeling version means you place a physical copy of the business function in the repository of Version 2. You also break the link with the business function in Version 1.
- When you have changed the description in the business function repository of Version 2 to *Ten*, the business function in both reference models of Version 2 will be automatically changed.

This is because both models use the model items as defined in the repository of Version 2.

The advantage is clarified in Figure 2.11, which indicates that Reference Model 2 must not be used in Version 2, but in Version 1.

Figure 2.11 shows the situation after you have copied the description to the current version, and after you have changed the description in the repository.

Business function *Ten*, or *One* before the description was changed, is now physically available in Version 2.



This procedure also applies to components such as business processes, or reference models and project models. This places the creation of a new version in a broader perspective, because the model items do not have to be created from scratch. Instead, you only need to implement and store the changes.

Version authorizations

You must indicate whether the authorization mechanism must be applied after you have created a new version.

If you choose for the authorization mechanism to be applied, you are automatically authorized for that version.

You can also set version authorizations by using one or more of the three sessions discussed below.

If no LN user has been authorized for a specific version, all LN users can use that version.

User Authorization for all Versions (tgbrg1140m000)

To quickly authorize one or more LN users for all versions by only specifying their LN user logons, use the User Authorization for all Versions (tgbrg1140m000) session. When an LN user is included in this session, they can access all versions, including those created after the LN user was inserted in the session.

If you do not authorize a single LN user for a version, all LN users can use that version.

However, setting authorizations using this session does not mean you have authorized a user for a version; if only this session is used to implicitly authorize some LN users for a certain version, all other LN users can still use that version.

Version Authorization by User (tgbrg1150m000)

To authorize a specific LN user for one or more versions, use the Version Authorization by User (tgbrg1150m000) session. If you only specify one LN user, all other LN users cannot use the specified versions.

Revalidate Licensed Version (tgbrg1247m000)

To revalidate the authorization to use a particular version initially purchased from Infor, use the Revalidate Licensed Version (tgbrg1247m000) session.

After the expiration date of a license code, a new license code must be acquired from the manufacturer.

Statuses

A status can be linked to a model item; it identifies a stage in the development of that model item and is used to:

- Monitor the development progress of a model item
- Authorize users for the combination of a model item and a status

Statuses by Model Item (tgbrg5107m000)

To link self-defined statuses to the following model items, use the Statuses by Model Item (tgbrg5107m000) session:

- **Business Function**
- **Business Process**
- **Business Control Model**
- **Data Model**
- **Enterprise Structure Model**

- **Wizard**

A status displays the current phase of a model item. To update the status of a range of model items, use the Update Status of Model Items (tgbrg5207m000) session.

Note

A model item can only be given a status if the sequence number directly precedes, or succeeds, the sequence number of the status currently linked to the model item.

To define a status:

- Click *New*.
- Click *New Group*.
- In the *Model Item* field, select the model item for which you want to define or change a status.
- Specify a name or number to give to the status in the **Workflow Status** field.
- In the **Sequence** field, specify a sequence number to identify the status.
- Click **Save**

Update Status of Model Items (tgbrg5207m000)

To change the status of a range of model items in your current modeling version, use the Update Status of Model Items (tgbrg5207m000) session.

This session lets you assign any status listed in the Statuses by Model Item (tgbrg5107m000) session. You can also change the authorization for the model items.

Note

Before you start the session, you must supply, in capital letters, the default password: `BAAN` or `DEM`

To change the statuses of a different range of model items:

- On the **Selections 1** and **Selections 2** tab, select the range of model items and their new status.
- In the **Update specific authorization to** group box, select the new authorization for the selected ranges of model items on the appropriate tab.
- Click **Update Statuses**

If you select the **Include Previous Versions** check box, the statuses of model items that occur in versions from which the current modeling version is derived, are updated.

Users by Status by Model Item (tgbrg5108m000)

To start the Users by Status by Model Item (tgbrg5108m000) session:

- On the appropriate menu of the Statuses by Model Item (tgbrg5107m000) session, click **Users by Status by EM Component**, or Users by Status by Model Item (tgbrg5108m000).

Use this session to assign LN users or tools roles to a combination of a model item and a status. Authorization by status is given to LN users to prevent unauthorized users from changing model items being developed.

To assign an LN user, or tools role, to a combination of a status and a model item:

- In the Statuses by Model Item (tgbrg5107m000) session, select the combination of a model item and a status. Start the current session:
- Click *New*
- In the **User** field you want to link to the combination of the selected status and model item, select an LN user or a tools role.
- Click **Save**

If you do not specify LN users for the previously mentioned combination, every LN user is authorized for that model item/status-combination, provided that this LN user has the correct version authorization.

Parameters (tgbrg9100m000)

- To store the parameters that can be used in business models, use the Parameters (tgbrg9100m000) session; this determines the working of the LN sessions used in activities of type application in the business processes.
- The values of the parameters are set or changed in the Values by Parameter, Company, and Model (tgbrg9110m000) session. This session can only be started in a project model or reference model.
- To access the Help information of a specific parameter, on the appropriate menu, select **Parameter Help**.
- To find out where certain parameters are used, use the **Print Where-Used Parameters** session.

Import Parameter Table (tgbrg9200m000)

To automatically import parameters from the LN application database into the Parameters (tgbrg9100m000) session, use the Import Parameter Table (tgbrg9200m000) session. To start this session, on the appropriate menu of the Parameters (tgbrg9100m000) session, click Import Parameter Table (tgbrg9200m000). The Parameters (tgbrg9100m000) session functions as a temporary buffer after you have imported the parameters from the Tools parameter table.

By using this session, you do not need to insert each parameter separately. You can specify a range of packages and modules and which parameters you want to import.

To import a range of parameters:

- In the **Package** field and **Module** field, select the range of packages and modules for which parameters you want to import.
- In the **Sequence Settings** group box, define the sequence numbers for the imported parameters.
- Click **Import**

If you select the **Overwrite Current Sequence** check box, the parameters already present in the Parameters (tgbrg9100m000) session are replaced by the newly imported parameters.

AO Documents (tgbrg8100m000)

To define references to existing AO documents that contain formal administrative organization rules about the execution of processes, use the AO Documents (tgbrg8100m000) session.

Because you can activate the text editor to create or modify a Help text for each AO document, you can view the Help text related to a document when you carry out a business process to which the AO document is linked.

The AO Documents (tgbrg8100m000) session is used to store help texts related to the use of the AO documents; it is not used to store the actual AO documents.

Categories

You can create categories for model items which are of the same type. Therefore, model items can be labeled and grouped together.

Category sessions exist for the following model items:

- Enterprise Unit Categories (tgbrg0132m000)
- Print Enterprise Unit Relationship Categories (tgbrg0445m000)
- Business Control Diagram Categories (tgbrg9155m000)
- Business Control Diagram Function/Buffer/External Agent Categories (tgbrg9175m000)
- Business Control Diagram Trigger Categories (tgbrg9185m000)
- Business Function Categories (tgbrg2120m000)
- Business Process Categories (tgbrg5105m000)
- Business Process Activity Categories (tgbrg5525m000)
- Entity Type Categories (tgerm2150m000)
- Entity Type Relationship Categories (tgerm3150m000)
- Wizard Categories (tgwzr5100m000)

Chapter 3
Optional Master Data

3

Introduction

The optional sessions in the master data provide extra functionality to help the reuse of applications in business models.

Component import/export

The component import and export functionality gives the option to exchange component data between LN installations of separate DEM/ LN companies. Therefore, instead of defining components and applications every time you build a business model, you can exchange existing components.

Export Component Model Data (tgbrg5257m000)

To export components and their corresponding applications to a file so they can be reused in another company or on another system, use the Export Component Model Data (tgbrg5257m000).

To export component model data, complete the following steps:

- In the **File** field, specify a file to which the components must be exported.
- In the **Component** field, select the range of components you want to export.
- In the **Component Release** field, select the component releases of the components you have selected in the **Component Release** field.
- Select the **Applications** check box, and select the range of applications you want to export. If the export range consists of more than one component, the full range of applications linked to the selected components is automatically exported if you select the **Applications** check box.
- Click **Export**

Key fields for the Export Component Model Data (tgbrg5257m000) session

Field	Description
Compress	If you select this check box, the file is exported in a compressed format. The file will get the `.Z` extension.
Include Translation Comments	If you select this check box, text is added in the export to identify the individual items; this is useful for translations of the export file.
Exclude Rich Text Format (rtf)	If you select this check box, texts in RTF format are not exported.
Subapplications	If you select this check box, the sub-applications linked to the selected range of applications are exported.

To specify ranges of source and destination components, component releases, and applications with conversion data is stored in the Conversion of Applications (tgbrg5150m000) session:

- Select the **Application Conversion Data** check box.
- Then, select the **Application Conversion Data** tab.

The conversion data of the selections you make on this tab are also exported. For more information about conversion of applications, see `Section> Application Conversion`.

Import Component Model Data (tgbrg5256m000)

To import the components, applications, and conversion information from an export file you created using the Export Component Model Data (tgbrg5257m000) session, use the Import Component Model Data (tgbrg5256m000) session.

To import component model data, complete the following steps:

- In the **File** field, select a file in which the components you want to import are stored.
- In the **Component**, **Component Release**, and **Applications** field, specify `zzzzzz`
- Click **Import**

Key fields for the Import Component Model Data (tgbrg5256m000) session

Field	Description
Overwrite	To overwrite existing information with the imported information, select this check box.
Subapplications	Select this check box if you want to import the sub-applications that are linked to the applications that you import.
Do not overwrite text within	If this check box is selected, the texts for the application conversions are not overwritten.
Application Conversion Data	To specify selection ranges on the **Application Conversion Data** tab, select this check box.

Note

The range of application conversion data you select in the fields on the **Application Conversion Data** tab is imported from the conversion dump, as defined in the Conversion of Applications (tgbrg5150m000) session.

Chapter 4
Introduction to the repository

4

Introduction

In the **Master Data**, you set up a framework within which business models can be created and maintained. However, to build a business model you need to create various model items that together can make up a project model or reference model.

These model items must be defined in the repository, which is a library where all the model items are stored so they can be used and reused in numerous business models. You can either build a project model based on a reference model or a reference model based on a project model. You can also create either business model from scratch. However, regardless of your choice, before you compose a business model, you first need to create model items in the repository.

This chapter explains general features you must remember when you create or modify a model item in the repository. The way in which you handle these features influences the way in which you can use the model items in a business model.

The repository procedure

This procedure creates model items you can use as building blocks for a business model.

Apart from support applications, you can link a text to all model items to provide them with more information. These texts can be created in the repository and in the business model.

To start the text editor in the repository:

- Click **Edit Rep. Help**
- If a repository help text has been created for a model item, the **Repository Help** check box in the corresponding session is selected.
- To view a model item's repository help, click **View Repository Help**.

If a text has been created in a business model, it can be lost when a project model is created based on a reference model, or the other way around.

Because the new text from the reference model is a copy and not a link, the original text in the project model is no longer present when you make changes to the text in the project model.

The repository texts and the model specific texts can be viewed in the business model. However, only the model-specific text can be modified. To modify the repository text, in the repository, edit the corresponding model item.

To create the model items required to construct a business model, you can use the LN repository sessions.

Run the sessions in this order:

1. Current Modeling Version by User (tgbrg1110m000).
2. Business Control Diagrams (tgbrg9550m000).
3. Business Functions (tgbrg2500m000).
4. Business Processes (tgbrg5500m000).
5. Support Applications (tgbrg5170m000).
6. Static Conditions (tgbrg5580m000).
7. Employees (tgbrg8135m000).
8. Roles (tgbrg8110m000).
9. Rules (tgbrg7500m000).
10. Wizards (tgbrg1500m000).

The current modeling version

The model items you create are stored in versions. Therefore, a complete business model must be constructed in one version, or in combination with versions derived from the original version.

Subsequently, existing model items you want to add to a version must be copied to this version to modify them. This is done through the Copy Version Data to Other Version (tgbrg1200m000) session, as described in *Chapter 13 Model Item Management*.

If a model item is only present through the derived-from version structure, you must copy that model item to your current modeling version.

To do this, on the appropriate menu of the session you are working in:

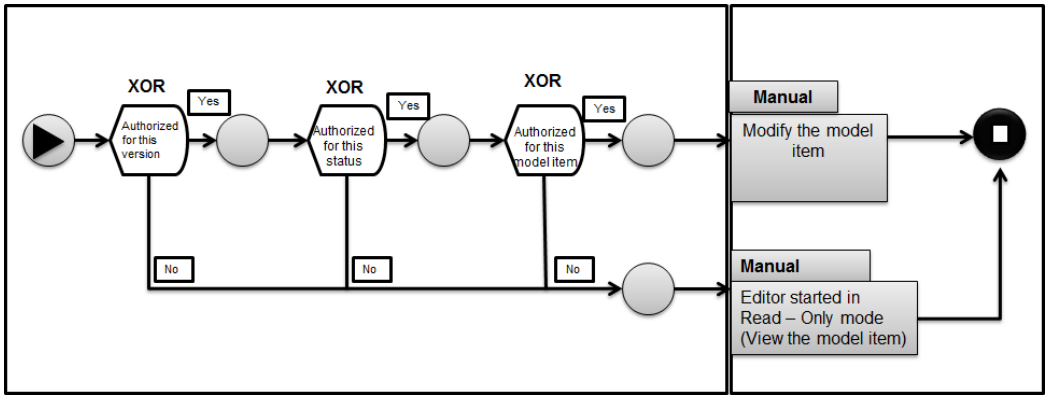
- Click *Copy Current Modeling Version*

With this functionality, model items can be transferred to your current modeling version quickly and easily. Model items can only be modified in your current modeling version.

Authorization mechanism

The authorization mechanism stops changes being made to model items by unauthorized users. The authorization mechanism consists of the following three components:

- Version authorization (applies to all components).
- Status authorization (only applies to the repository).
- Model item authorization (only applies to the repository).



Authorization mechanism for model item modification

Version authorization

First, you need authorization for the version in which the model items occur.

Note

If no specific LN users have been specified for a specific version, every LN user is authorized for that version.

Status authorization

You must be authorized for the status of a model item; however, this is not mandatory.

To define the statuses you want to use, use the master data in the Statuses by Model Item (tgbrg5107m000) session. To regulate the authorization for a model item linked to this particular status, you can link LN users or tools roles to a status.

A tools role specifies the authorizations of an LN user and has the following properties:

- It is defined in the Role Data (ttams2100m000) session.
- It is linked to a normal LN user in the User Data (ttaad2500m000) session.
- Up to five roles, not including subroles, can be linked to each LN user.
- Super users automatically have all tools roles.
- The authorization applies to the entire suite of LN packages.

Subroles can be linked to a tools role. Authorizations for subroles are transferred to the parent. Therefore, the parent gets all the authorizations from the subrole and keeps the authorizations it already had. In case of conflicting authorizations in different subroles, the highest authorization is transferred.

In the Dynamic Enterprise Modeler, a tools role is used to specify the authorizations regarding model items.

An authorized LN user is allowed to do the following:

- Change data, such as the description and status of model items.
- Change diagrams, such as business process diagrams and enterprise structure diagrams.

Note

If you do not specify LN users or tools roles for a combination of a model item and a status, every LN user is automatically authorized for the model item with that status.

Whenever a certain tools role is authorized for a status of a model item, all normal users with that tools role and all super users are authorized.

If no tools role is specified for a combination of a model item and a status, a super user is not automatically authorized.

The super user must be explicitly defined as an LN user for the combination of model item type and status.

Model item authorization

You must be authorized for the model item itself. This type of authorization can apply to the following group of LN users:

- The owner of a model item
- An LN user with the tools role linked to the model item
- All LN users

All sessions in the repository that let you create or modify a model item have a group box, which you can set the model item authorization.

Current modeling version sessions

The LN sessions discussed in the following section look at setting the current modeling version.

Current Modeling Version of Users (tgbrg1510m000)

To define your current modeling version, use the Current Modeling Version of Users (tgbrg1510m000) session. The current modeling version is the version in which you are working, and in which you can modify model items that are created in that version.

Note

If your current modeling version is unequal to the version of the model item, the model item can be displayed in the read-only mode. No modifications can be made.

To set your current modeling version:

- In the **Current Modeling Version** field, select the version in which you want to model the model items that must make up the project or reference model.
- Click **Save**

Change Current Modeling Version for a range of Users (tgbrg1211m000)

To assign a new current modeling version to a group of LN users, use the Change Current Modeling Version for a range of Users (tgbrg1211m000) session.

To change the current modeling version for a range of LN users:

- In the **User** field, select the range of LN users whose current modeling version you want to change.
- In the **Company** field, select the range of companies to which the specified LN users must be linked to have their current modeling version changed.
- In the **Version** field, select the range of versions to which the specified LN users must be linked to have their current modeling version changed.
- In the **Change to** group box, select the version that must become the current modeling version for the selected range of LN users.
- Click **Change Data**.

Key fields for the Change Current Modeling Version for a range of Users (tgbrg1211m000) session

Field	Description
Test Run	If this check box is selected,, a report is printed that shows the hypothetical outcome if this session would be run.
Print Errors	If this check box is selected,, the errors that occur when you run the current session are printed.
Fill Current Version of Users who do not have a Current Version	If this check box is selected,, the selected current modeling version is assigned to the following LN users: ■ Users who fall within the range of users you specified. ■ User who do not yet have a current modeling version.

Chapter 5
Business control model

5

Introduction

This chapter discusses business control diagrams and business functions. It explains the functions of both model items in a business model, and shows how to create a business control diagram and a business function diagram in the Modeler.

Business control model

Business control models display the primary processes that take place within an organization, and show which business functions are used to control those primary processes. A business control model consists of one or more business control diagrams which can be structured hierarchically.

The objectives of a business control model:

- To provide support during implementation of the LN software. This is done by visualizing the primary process, and by discussing the functionality that must be implemented to control the primary process.
- To automatically add the business processes to the business model, according to the outcome of the discussion as represented in the final Business Control Diagram.

An unlimited number of business control diagrams can be defined for each business control model. Each diagram shows one part of the primary process in an enterprise unit or logistical company, and the business functions used to control it.

A business control model shows the relationships between the different business functions and all other parts of the model, such as the goods flow, the information process, and the control process. The business functions used in a business control model can be linked to business functions in a business function model.

You could build your business control model in a way that would divide your organization in two levels:

- An overall business control diagram.
- Business control diagrams that each represent a business case.

Constructing your business control model in this way means you have one top business control diagram with several child business control diagrams that represent the different departments/sections within your organization.

Business Control Diagrams (tgbrg9550m000)

To maintain a library of business control diagrams, use the Business Control Diagrams (tgbrg9550m000) session. Based on the business control diagram repository, you can create business control models by defining relationships between the different diagrams.

To define a business control model, zoom to the Business Control Diagrams by Business Control Diagrams (tgbrg9550m000) session. To start this session:

- On the appropriate menu, click **Child Business Control Diagrams ...**.
- Alternatively, click **Child BCD**.

In this session, you must specify a business control diagram in a specific version to which you can link an unlimited number of other business control diagrams.

To create a business control diagram, complete the following steps:

- Click *New*
- In the Business Control Diagrams (tgbrg9150s000) field, specify a name for the business control diagram.
- Select the type of authorization for the diagram. Select one of the check boxes that belong to the **To be modified by** field.
- Click **Save**.

Key fields for the Business Control Diagrams (tgbrg9150s000) session

Field	Description
Diagram Status	Specify the status to show the development stage of the business control diagram.
Owner	The LN user who created the business control diagram, or the LN user responsible for the diagram.
Generation Date	By default, this is the date when the business-control diagram was created. Any authorized LN user can change this date into another date.

To view how the business control diagrams in one particular version are interrelated, on the appropriate menu, click **Business Control Modeler**

Business control diagrams in the modeler

A business control diagram is composed of several components which visualize the primary process. For more information about the diagrams, see *Infor LN Process Modeler Workbench User Guide (U9871)*.

Business-function model

Business functions define relevant business issues within organization typologies or specific organizations; they specify which implementation and optimization phases are to be used.

Business functions emphasize what is being accomplished within the various functions, without questioning how this is organized. The presence, or absence, of business functions during the implementation phase/optimization phase(s) is used to select and configure the business processes; it also sets the parameters of the LN applications for each phase.

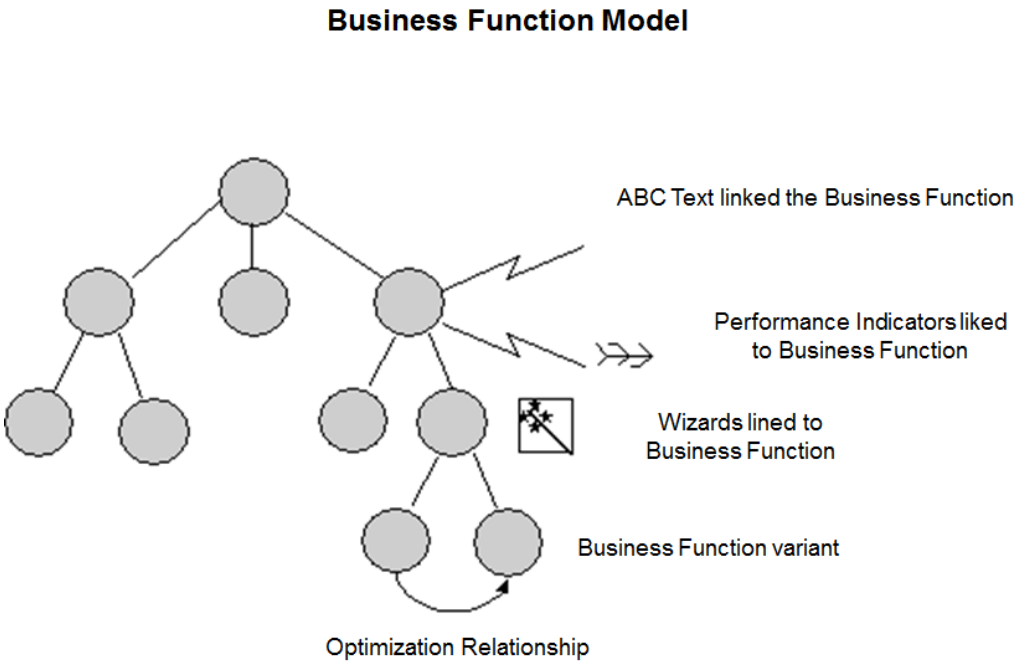
Business functions are used to visualize:

- The business functions used in the business control model
- Consistency checks between the functions
- The functions to be implemented and when
- The performance of business functions using performance indicators
- The configuration of the LN applications

The same business function can be used in numerous business control diagrams. However, the same business function can only appear once in a business function model.

Business functions can be defined in a hierarchical structure; therefore, a function can have sub-functions. This structure is used as an aid when defining the business functions, and does not have to be maintained in a reference or project model.

Function A can be defined in the repository with sub-functions A1 and A2. In a reference model, these three business functions could be used to create a function A2 with sub-function A with sub (sub) function A1.



Business Function Model

Business Functions (tgbrg2500m000)

To create new business functions or modify existing business functions, use the Business Functions (tgbrg2500m000) session.

Performance indicators, known as PIs, can be linked to business functions. To do this:

- On the appropriate menu, select a business function and click the **Performance Indicators by BF...** icon.

A performance indicator is a value that indicates the achievements of organizational units. The value varies by time unit, such as week and day, and is calculated by a script.

To monitor and improve the performance of business functions, link performance indicators to business functions.

In the *Performance Indicators by Business Function (tgbrg2130m000)* session, you can select one or more performance indicators and link them to the selected business function.

To create a business function, complete the following steps:

- Click *New*
- In the **Business Function** field, specify a name for the business function.
- In the **External Code** field, specify a code that indicates the position of the business function relative to other business functions.
- Select the type of authorization for the diagram. To do this, select one of the check boxes that belong to the **To be modified by** field on the **Authorizations** tab.
- Click **Save**
- Click **Close**

Key fields for the Business Functions (tgbrg2100s000) session

Field	Description
Parent Business Function	The business function one level above the current business function and to which the current business function is linked. A tree structure is built from the *Business Functions* table with the Parent **Business Function** field.
Generation Date	By default, the date when the business function was created. However, anybody who is authorized can change the date to another date.
Owner	The LN user who created the business function, or the LN user responsible for the business function.
Wizard	Select a wizard and link it to the business function. In combination with parameter setting rules, wizards are used to set parameter values of a logistical company.
Diagram Status	An identification of a stage in the development of the business function.

To view the available business functions in your current modeling version:

- On the appropriate menu, click the **Business Function Browser...**.
- To zoom to a lower level and see the linked sub functions and business processes, double-click a business function.

When creating a project model, potential optimization growth paths can be included in the business function model using optimization relations between business functions.

You can specify which business function must be implemented in which optimization phase. For an organization, this clarifies changes in their way of working, and takes care of the (re)-configuration of the LN software. The linking of optimization phases to business functions results in different selections of business processes which influences their configuration.

Therefore, you must create all business functions in the Business Functions (tgbrg2500m000) session; later, you must define the optimization relationships between them in the project model.

Business functions in the Modeler

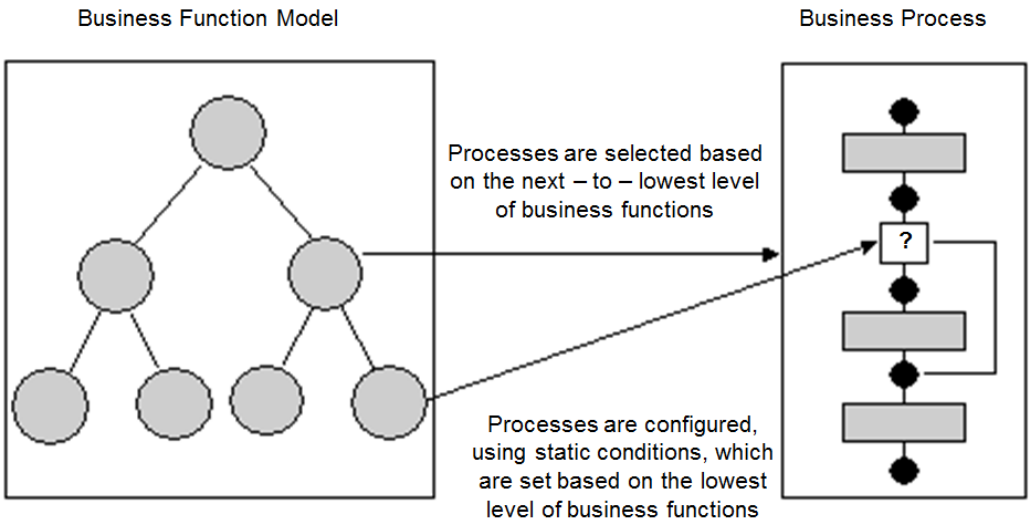
For more information about the Business functions in the Modeler, see *Dynamic Modeler Workbench User guide (U9871)*.

Chapter 6
Business Processes

6

Introduction

A business process model visualizes the business processes that must be used to complete the implemented business function of an organization. While the business functions in the control model only relate to what takes place in an organization, the business processes visualize how the functions must be carried out. The processes also present the relevant LN sessions to the users, and the order in which these LN sessions must be used.



The relationship between business functions and business processes

An unlimited number of business process diagrams can be defined for each business process model. Each diagram consists of a graphical depiction of the activities that must be carried out to complete part of a business function.

The relationships between activities and the order of the activities are modeled according to the Petri-net modeling conventions. Therefore, a process contains activities, control activities, states, and relationships between the first three components.

Activities are steps you must perform to complete a part of the business process. Activities can represent manual tasks, applications, business processes, triggers, or a file based task. The last option requires that the file is located on your local machine, or on a shared network drive/directory.

States represent the output from one activity and the input for the next activity. Control activities represent decision points in a business process diagram. A branch of the process flow can be activated or deactivated at these decision points. This can be done based on implementation choices, or operational choices, and is realized by static conditions.

Business Processes (tgbrg5500m000)

To create new business processes or modify existing ones, use the Business Processes (tgbrg5500m000) session. Complete these steps:

- Click *New*.
- In the **Business Process** field, specify a name for the business process.
- On the **Authorizations** tab, select the type of authorization for the diagram, by selecting one of the check boxes that belongs to the **To be modified by** field.
- Click **Save**.

Key fields for the Business Process in Repository (tgbrg5100s000) session

Field	Description
Generation Date	By default, the date when the business process was created. However, all authorized LN users can change the date.
Owner	The LN user who has created the business process or who is responsible for the business process.
Support Application	Link a support application to the business process to provide extra functionality, or information, that may help carry out the activity.
URL	An address for a resource on the Internet that may provide more information when carrying out the business process.
Diagram Status	An identification of a stage in the development of a business process.

To view the business processes and their activities in a graphical and structured way:

1. Select:
   - On the appropriate menu click the **Business Process Browser ...**.
   - Select one of the business processes or activities and click **Details**.

   The Business Process in Repository (tgbrg5100s000) session, or the Business Process Activities (tgbrg5122s000) session is started. Use these to change the data of the selected business process or activity.
2. Select a business process and from the appropriate menu select Process Modeler.

Business processes in the Modeler

For more information about the Business processes in the Modeler, see *Infor LN Process Modeler Workbench User Guide (U9871)*.

Business process sessions in the Modeler

Business process sessions in the Modeler

The following LN sessions can only be started when you create or modify a business process diagram in the Process Modeler Workbench.

Business Process Activities (tgbrg5122s000)

To define the basic data of activities and control activities, use the Business Process Activities (tgbrg5122s000) session.

An activity can be:

- Of the type manual activity
- A nested business process
- An application

To start the session, double-click an activity or right-click an activity and click **Properties**.

To create an activity, complete the following steps:

- Manual Activity:
  - In the **Activity Type** field, select **Manual Activity**.
  - In the **Activity Description** field, specify a description for the activity.
  - Click *OK*
- Business Process:
  - In the **Activity Type** field, select Business Process.
  - In the **Code** field, select the business process that must be linked to the activity.
  - To have the description of the selected business process, as stored in the Business Processes (tgbrg5500m000) session, used in the activity, select the **Link Description** check box. If you do not select this check box, you can specify a description in the **Activity Description** field.
  - Click *OK*
- Application:
  - In the **Activity Type** field, select **Application**.
  - In the **Component** and **Component Release** field, select a combination of a component and component release to which the application belongs.
  - In the **Added Applications** field, select the application that you want to link to the activity.
  - To have the description of the selected application, as stored in the Applications by Component (tgbrg5155m000) session, used in the activity, select the **Link Description** check box. If you do not select this check box, you can specify a description in the **Activity Description** field.
  - On the **Startup Options** tab, in the **Application Authorization** field, select one of these levels of authorization for the application:

  - **Full Authorization**
  - **Print/Display**
  - **Display**
  - **Print Report**
- The authorization you select here applies to the employees that have the role that authorizes them to carry out that specific activity. You can also remove specific form commands. Therefore, users cannot start processes through the specific menu.
- Click *OK*.

Application specific options

Field	Description
Argument	You can specify a constant value or variable in this field. To use a variable in this field, a dollar sign ($) must be placed in front of the variable name.
Start Option	Select the applications start option that must automatically be started when the application is started; this option is only applicable to Baan sessions.
Specific Option	If the **Start Option** field is set to appropriate, you can select a form command of the selected application (LN session). When the application is started, the form command is started automatically.
Do Find first	If you select this check box, a Find Record action is performed at startup of the LN session. The **Do Find first** check box can only be selected if you select appropriate as the Start Option. For all the other start options, a do find first action is automatically carried out.
Available Options	In this group box, you can select one or more options that can be carried out at run time; this option is only available if the application is an LN session.
Start Up Type of Session	Select the way in which the LN session must be started. Select one of the following values: ■ **Single Occurrence Session** ■ **Multi Occ (Single Record)** ■ **Multi Occ (Multi Record)**

Business Process States (tgbrg5130s000)

To define a description for the state and specify an external code, use the Business Process States (tgbrg5130s000) session.

This code indicates the position of that state relative to other states.

Subapplications

A subapplication is an application started from another application.

You can link one or more subapplications to an activity of type application. To be linked to an activity of type application in the Modeler, it must be defined in the Subapplications by Application (tgbrg5154m000) session.

To assign a different level of authorization to the subapplication in comparison to the main application to which it belongs, you only need to define subapplications. The main application determines which applications can be started as subapplications; usually, these are the applications listed in the main application's appropriate menu.

Note

For more information about the options of modeling subapplications, refer to the online help.

To link a subapplication to an activity of type application, complete the following steps:

- Right-click an activity of type application and click **Subapplication**. The Subapplications window is displayed.
- In the Subapplication Modeler (tgbrg5124m000) session, select one or more subapplication(s).
- Add Subapplications as modeled subapplications
- Select the added subapplications and then click **Option Authorizations** and select the appropriate authorization for the subapplication(s).
- Click **Save** and close the session.

Conditions

A control activity in a business process represents a question that must be answered to continue the business process in a certain direction.

The answer to the question is placed in a variable, which is referred to as a condition. If the question concerns an implementation choice, the answer is stored in a variable referred to as a static condition.

Static Conditions (tgbrg5580m000)

To create and maintain static conditions, use the Static Conditions (tgbrg5580m000) session.

For each static condition, you must select a default value, which is set to **No** by default; however, you can change this value to **Yes** in the **Default** field.

Depending on the presence of particular business functions in the business function model, the values of static conditions can be changed using static condition setting rules. The default values of the static conditions you select in this session are used to determine the value of a static condition if the static condition rule does not evaluate to true, or does not evaluate at all.

As a standard, the default value must be set to **No**; therefore, only the rules that change the value of static conditions to **Yes** must be defined.

To see the result of a static condition, you must incorporate the business process in which the static condition is used in a business model. Then, you must carry out the static condition setting rules.

To create a static condition, complete the following steps:

- Click *New*
- In the **Static Condition** field, specify a name for the static condition.
- In the **Default** field, select the default value.
- Click **Save**

To find out where certain static conditions are used, use the Print Where-Used Static Conditions (tgbrg5481m000) session.

Condition sessions in the Modeler

The three sessions that are discussed deal with the linking of static conditions to outgoing transitions that leave a control activity in a business process diagram.

Condition (tgbrg5145s000)

To link a static condition to an arrow leaving a control activity, use the Condition (tgbrg5145s000) session.

To link a static condition to an outgoing transition:

- To start this session, double-click an arrow, or right-click and select Properties.
- In the **Condition** field, in the **Static Condition** group box, select a static condition.
- Click *OK*.

Key fields for the Condition (tgbrg5145s000)

Field	Description
Not	If this check box is selected,, the condition becomes effective if it evaluates to False.
Link Description	If this check box is selected,, the description that was linked to the dynamic or static condition, in their respective sessions, becomes the description in the business-process diagram. The description is also linked to the outbound transition.

Rules (tgbrg7500m000)

These four rules configure part of the business functions and business processes:

- Consistency rule
- Parameter setting rule
- Transformation rule
- Static condition setting rule

Rules (tgbrg7500m000)

To list and maintain all four rules, use the Rules (tgbrg7500m000) session.

To create a rule, complete the following steps:

- Click *New*
- In the **Rule Type** field, select the type of rule that you want to create.
- In the **Rule** field, specify a name or code for the Rule.
- Start the text editor and create the IF-part of the rule, click **Rule Condition**.
- After the IF logical operator, in the text editor, specify one or more business functions or static conditions.

Note

You must leave a space between the operators and the operands, such as: `BF, 1`.

- Click **Save**

To zoom to lists of business functions, business processes, and static conditions you can include in the rule condition, on the *Options* menu in the text editor, click *Start Zoomsession*. This zoom session can also be used to automatically insert statements.

Note

If the IF-part of an expression is empty, the rule is always valid.

After you have defined the IF-part of a rule, you must define the THEN-part. To do this, complete the following step:

- To create the THEN part of the expression in one of the following Baan sessions, click THEN-part:
  - The Set Parameters by Rule (tgbrg7117m000) session.
  - The Select Business Processes by Rule (tgbrg7127m000) session.
  - The Set Static Conditions by Rule (tgbrg7137m000) session.

It depends on the type of rule as to which of the LN sessions is started.

In the case of consistency rules, you cannot specify the THEN part in a separate LN session. Instead, you must specify the *THEN* part in the text editor.

Types of rules

This section explains the different kinds of rules, and includes examples of how to illustrate the syntax that must be used.

Consistency rule

This type of rule is an expression that contains a combination of business functions on the basis of which one or more business functions must be included in the business model.

Example

```
IF <BF, BF5, Sales>

THEN <BF, BF12, Sales Order Management>
```

If the Sales business function is part of the Business Function Model, then the Sales Order Management business function must be part of the Business Function Model.

Parameter setting rule

This type of rule determines the value of parameters. The value is determined on the basis of a combination of business functions, business processes/static conditions.

Example

```
IF <BF, BF3, Inventory Location Control>

THEN

Parameter

Use ILC Yes
```

When the Inventory Location Control business function is in the Business Function Model, then the Use ILC parameter must receive the value `Yes`.

Transformation rule

A transformation rule is an expression that imposes a unilateral dependency on business processes in relation to business functions.

If specific business functions are present in a business model, the business processes related to these business functions through the transformation rules you created are automatically incorporated in these business models.

This rule is used to select certain business processes from the repository and copy them to the Business Process Model of the business model if the rule condition is true.

Example

```
If <BF, BF5, Sales>

THEN

SBP 033 Sales
```

If the Sales business function is in the Business Function Model, then the Sales business process must be incorporated in the Business Process Model.

Static Condition Setting rule

This rule determines the value of static conditions depending on the business functions used in the business model. The values of the static conditions are used to choose between the arrows leaving control activities in business processes. If the defined rule evaluates to true, the static conditions based on this rule are set to **Yes**.

When leaving a control activity, some arrow(s) must be followed if the static condition is set to **Yes**; the other arrow(s) must be followed if the static condition is set to **No**.

The conditions are static because the rules relate to implementation decisions, which are usually only made when a new implementation/optimization phase is started. They do not relate to operational decisions, which are made each time a process is carried out.

Example

```
If <BF, BF7, Special Pricing>

THEN

Use Special Pricing Yes
```

If the Special Pricing business function is in the Business Function Model, then the Use Special Pricing static condition should have the value **Yes**.

If you want to create a static condition setting rule, the static conditions must first have been defined in the Static Conditions (tgbrg5580m000) session.

To define static conditions and static condition setting rules, use one of the following ways. Both are possible if one of them is used consistently:

- A static condition is set to **No** by default. If a rule related to that static condition is met, the static condition is set to **Yes**. Because this method has been used for the models in Baan IVc, the default values of the static conditions is always **No**. The Set Static Conditions by Rule (tgbrg7137m000) session only includes the conditions that must be set to **Yes**.
- A static condition is set to **Yes** by default. If a rule is met, the static condition is set to **No**. In this case the default values of the static conditions are always **Yes**, and the Set Static Conditions by Rule (tgbrg7137m000) session only includes the conditions that must be set to **No**. Although this is a possible option, the first possibility is used as a standard.

Support applications

A support application contains one or more LN sessions that can be used to support the execution of an activity. These optional sessions, referred to as support applications, are collections of auxiliary sessions such as print and display sessions. However, a support application can be layered and contain other support applications.

Support applications can be linked to a business process or activity; however, they cannot be incorporated in the business process because they are not a mandatory part of it.

Support Applications (tgbrg5170m000)

To define the support applications, use the Support Applications (tgbrg5170m000) session. Creating a support application means you must add LN sessions to the support application, or add other support applications to the support application.

Use the session Component Applications by Support Applications (tgbrg5160s000). To start this session, select the appropriate menu, click **Applications by Support Application**. In this session, support applications and LN sessions can be linked to a support application.

The LN sessions included in the support applications are additional to the LN session linked to an activity. Therefore, an activity of type application consists of an application, and a number of support applications.

To see which LN sessions and support applications are linked to a support application, on the appropriate menu, click the *Browser* icon, or the **Support Application Browser...**.

Component Applications by Support Applications (tgbrg5160m000)

To list and maintain the applications and support applications for each support application, use the Component Applications by Support Applications (tgbrg5160m000) session.

To link an application or support application to a support application:

- To start the Component Applications by Support Applications (tgbrg5160s000) session, click *New*.
- To include an LN session or a support application in the support application, select one of the following values:
  - **Application**
    An LN session
  - **Support Application**
    A support application included as a child support application in another support application.
- If you have selected *Application* in the **Type** field, in the **Component** field and the **Component Release** field, select a combination of a component and component release.
- In the **Code** field, select the LN session or support application you want to include in the support application.
- Select the authorization for employees with the correct role when they want to use the selected application in a run time environment. You can only access this field if you have selected *Application* in the **Type** field.
- Click **Save**.

In the **Argument** field you can specify extra information that is delivered to a component; therefore, predefined actions are carried out.

To find out where certain support applications are used, use the Print Where-Used Support Applications (tgbrg5471m000) session.

Support applications in the Modeler

You can link a support application to all activity types. To link a support application to an activity, complete the following steps:

- Right click an activity and click Properties.
- In the Business Process Activities (tgbrg5122s000) sessions, select a support application in the **Support Application** field and click *OK*.

Petri nets modeling conventions

Process modeling with Petri nets is based on these principles:

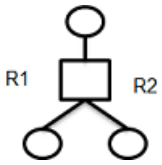
- An activity is enabled when there is at least one token in all connected input states of the activity.
- An activity consumes one token from every input state, and produces one token to every connected output state.

- Control activities are dedicated for the routing of tokens and have special capabilities.
- Typically, control activities behave as normal activities regarding token consumption and production.
- The actual behavior of control activities is fully determined by assigning static conditions to the input and output transitions with states. Static conditions refer to an implementation decision. Dynamic conditions refer to a run-time decision moment. The static condition overrules the dynamic condition because the static condition enables/disables paths in the business process. Dynamic conditions determine the path through the business process.
- There can be more than two incoming or outgoing transitions.

The control structures

The R1 and R2 references used in the following texts refer to dynamic conditions.

AND split



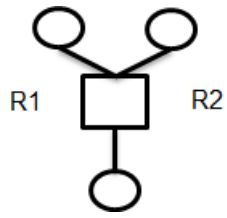
The control activity unconditionally consumes one token and produces two tokens, with one for each output state.

OR/XOR split

The control activity consumes one token and produces one or two tokens, with one for each output state at the most, depending on the actual dynamic condition values of R1 and R2.

If R1 and R2 exclude each other, the construction is an exclusive OR, called XOR (R1 or R2, but not both). Otherwise, the construction is an OR (R1 or R2, or both).

AND join (optional)



If all input states contain at least one token, the control activity is enabled. The control activity unconditionally consumes the two tokens and produces one token.

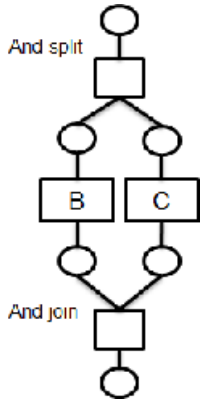
OR/XOR join (optional)

Depending on the actual condition values of R1 and R2, the control activity will consume one or two tokens and produce one token. If R1 and R2 exclude each other, the construction is an exclusive OR (R1 or R2, but not both). Otherwise, the construction is an OR (R1 or R2, or both).

Logically applying these control structure principles results in these basic building blocks. Each process can be modeled with these building blocks, and using these blocks guarantees the correct syntax.

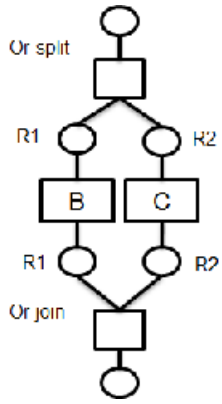
The Petri net building blocks

AND: activities executed in parallel (mandatory)



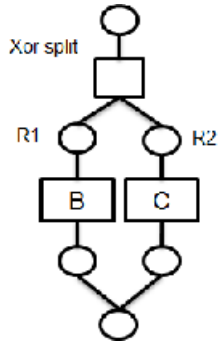
The sequence in which B and C are executed is not important. The AND join is optional and not necessary in a DEM business process.

OR: activities executed in parallel (optional)



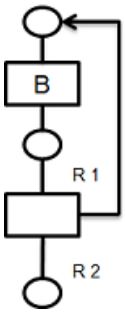
The first control activity has a variable number of output states, determined by the conditions R1 and R2. The second control activity has a variable number of input states, determined by the same conditions R1 and R2. The OR join is optional and not necessary in a DEM business process.

XOR: specialized activities



Based on the conditions R1 and R2, activity B or C is selected (not both, hence an exclusive OR). An OR join (no longer required in DEM) is represented by a single output state at the end of the process.

Iteration of activities



The execution of activity B, one or more times. The number of iterations is set.

Chapter 7
Organization Modeling

7

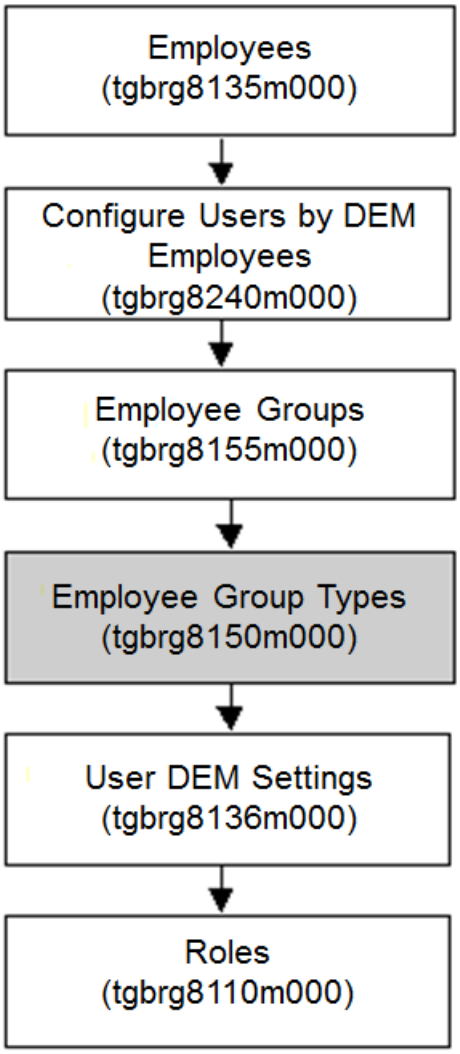
Introduction

The organization model represents an enterprise, or parts of an enterprise from an organizational perspective, and defines run time authorization for the Process Browser and the process menu in LN UI.

The organization model can be used through the business processes incorporated in both user interfaces. The organizational model offers an organizational view on an enterprise; it provides the functionality to define and maintain employees, roles, employee groups, and employee group types.

You can only define one organization model for an enterprise. From that perspective, the contents of the organization model, such as roles, must be available for each business model of that enterprise, because roles can be linked to processes and activities in each business model.

The organization model components can be defined in all versions available in the version tree. The organization model is built up by reading the version tree from the bottom to the top, or through the derived versions to the parent versions.



Organization modeling procedure

Employees (tgbrg8135m000)

To define employees and their corresponding personal data, use the Employees (tgbrg8135m000) session.

To define an employee:

- In the **Employee** field, specify the employee.
- In the **User** field, select an LN user to which you link the employee. An LN user is authorized to log on to the LN applications; data such as a startup menu, an operational language, and roles are also defined. If no LN user exists for the employee, you can create one using the session Configure Users by DEM Employees (tgbrg8240m000).

- In the **Employment (%)** field, specify the employment percentage; the percentage indicates the total working hours of the employee. The percentage you specify refers to the employee's working hours per day; it is used to distribute the workload evenly among employees by taking their respective working hours into consideration.
- In the **Last Date of Employment** field, specify the last working day of the employee.
- Click **Save**

All other fields in this session are optional. The data you enter in those fields is not used by any other LN session.

To view the roles, employee groups, and business processes to which an employee is linked:

- On the appropriate menu, click the **Employee Browser**.

To start the user interface for the LN user linked to the selected employee, as defined in the *Startup Program* field in the User Data (ttaad2500m000) session:

- On the appropriate menu, click **Start Screen Employee...**

Configure Users by DEM Employees (tgbrg8240m000)

To generate LN users and system logons for one or more employees, use the Configure Users by DEM Employees (tgbrg8240m000) session.

To start this session:

- On the appropriate menu of the Employees (tgbrg8135m000) session, click **Configure Users by DEM Employees**
- If no LN user is linked to an employee, this employee will not be able to start any LN application.

When you create an LN user for an employee, the fields in the User Data (ttaad2500m000) session are specified:

- The **User** field and **System Login** field are specified with a value based on the name of the employee.
- The **User Type** field is set to **Normal User**.
- The **Role** field contains these values:
  - **FORDEM**
    Full database authorization.
  - **FORDEM**
    No session authorization.

Note

After the LN users are created for the employees, you must create accounts for these employees on the operating system.

You can link an existing LN user or system logon to an employee. To find out whether an LN user or system logon already exists, start the User Data (ttaad2500m000) session. If you only link an existing system logon, you must generate the LN user and link the user to a database user.

To create LN users for a range of employees:

- In the Employee field, select the range of employees for who you want to create an LN user.
- In the **Configure User Data** section, select the user authorizations for the Web UI / LN UI for the selected range of employees.
  There are two types of menus:
  - **Process Browser**
    A personal menu structure based on the DEM setup, that shows all the activities for which the employee has authorization. You must supply the Project Model, version, and optimization Phase.
  - **Menu Browser**
    The normal Startup menu (Generic LN menu).
- In the **Company** field, select a company that will become the start up company for the selected range of employees. The company you select here determines the data available for the employees.
- If you select the **Allowed to Change Company** checkbox, the users that only have the **Process Browser** can also use the option *Change company* in their worktop.
- Click **Configure**.

If you select the **Create Users when not existing** check box, an LN user and a logon is created for the employees, within the selected range of employees, for whom an LN user and system logon do not exist.

User DEM Settings (tgbrg8136m000)

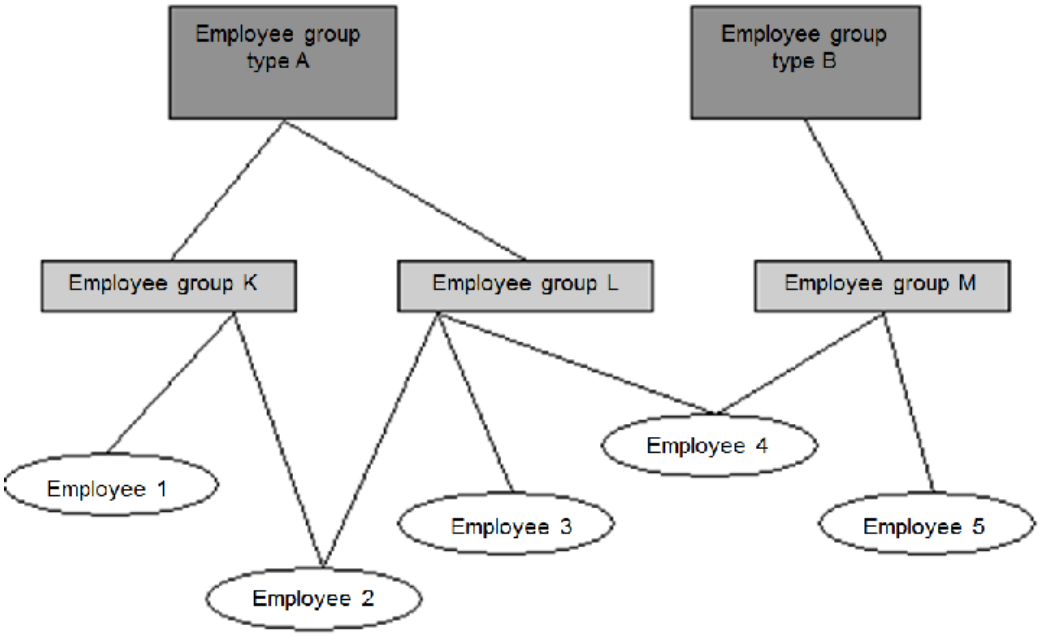
To determine the Process Browser settings for an LN user, use the User DEM Settings (tgbrg8136m000) session.

To define the DEM settings for an LN user:

- In the **Runtime Version and Project Model** group box, select the combination of a run time version, project model, and optimization phase; this combination is used as the default in the **Process Browser** of the selected LN user.
- Specify the number of days the business processes modified in the intervening period are shown with an illuminated icon in the **Process Browser**.
- Click **Save**.

Employee groups and Employee group types

An employee group is an organizational unit of employees. For further grouping you can link the employee groups to employee group types; these are labels for categorizing employee groups. You can link an employee group to an activity, but not to a complete business process. The figure shows the relationships between employees, employee groups, and employee group types.



The structure of an organization model

Employee Groups (tgbrg8155m000)

To create and maintain employee groups, use the Employee Groups (tgbrg8155m000) session.

In this session, you specify a name for the employee group and link the employee group to an employee group type for further grouping.

The creation of employee group types is done in the Employee Group Types (tgbrg8150m000) session. This session is self-explanatory and therefore not discussed any further.

Employees by Employee Group (tgbrg8160m000)

To link employees to an employee group, use the Employees by Employee Group (tgbrg8160m000) session.

An employee can be a member of several employee group types and a member of several employee groups within an employee group type. There are no restrictions regarding the number of employee groups and employee group types to which you link an employee.

Employee Groups by Employee Group (tgbrg8157m000)

To create and maintain child employee groups, use the Employee Groups by Employee Group (tgbrg8157m000) session.

A child employee group is an employee group linked to another employee group at one level below the latter.

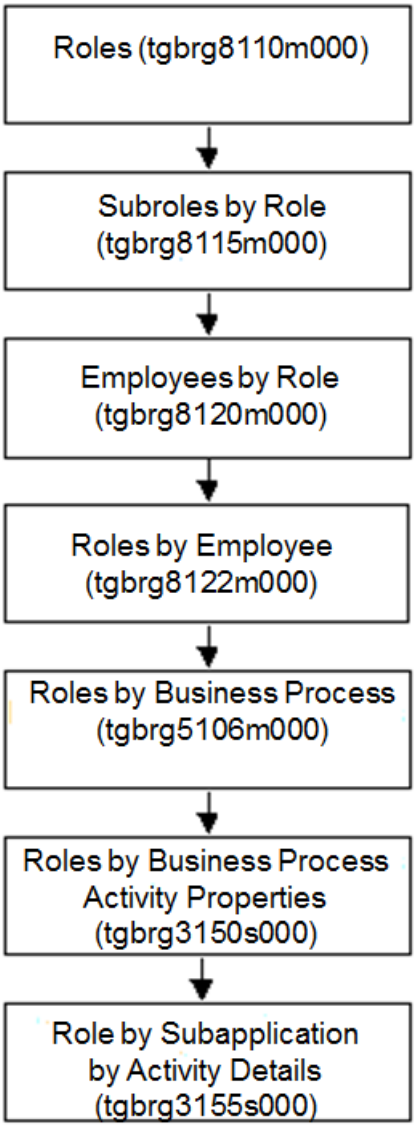
Note

The employee group type of the parent and child employee group must be the same.

Roles

The role procedure defines employee authorizations for the business processes and activities they carry out. The link between an employee and a business process or an activity, is affected indirectly by a role. A role is a collection of specific qualifications or skills, which an employee or a logical group of employees must meet, to be authorized to carry out a business process or an activity.

This diagram shows which sessions you must use to create roles, and how to link them to employees, business processes, and activities:



The role procedure

Roles (tgbrg8110m000)

To define all roles you want to use to authorize employees for business processes, use the Roles (tgbrg8110m000) session. The link between a role and an employee is version dependent. Therefore, an employee can have different roles in different versions.

You must define roles in the Roles (tgbrg8110m000) session, to select roles in one of these sessions:

- Role by Business Process Activity Properties (tgbrg3150s000)
- Roles by Business Process (tgbrg5106m000)

- Sub-roles by Role (tgbrg8115m000)
- Roles by Employee (tgbrg8122m000)

Sub-roles by Role (tgbrg8115m000)

To create or maintain sub-roles of a role, use the Sub-roles by Role (tgbrg8115m000) session. A sub-role is a regular role linked to another role on a level below the latter. Sub-roles simplify the linking of roles to business processes and activities.

A role can execute an activity without being linked to it if one of the role's sub-roles is linked to that activity.

The role you select in the **Sub-role** field can only be a role you have previously defined in the Roles (tgbrg8110m000) session.

Example

Business Process BP01:

- Activity A: role Secretary
- Activity B: role Accountant
- Activity C: role Sales Consultant

If the above three roles linked to the activities are defined as sub-roles of the role Manager, an employee with the role Manager can carry out all activities, although the role Manager is not linked to any of the activities.

Roles by Employee (tgbrg8122m000)

To link one or more roles to an employee, use the Roles by Employee (tgbrg8122m000) session.

Because you can link roles to business processes and activities, an employee is indirectly linked to a business process or activity by the role.

The combination of this data is used to create a personal menu in the form of the **Process Browser**.

Employees by Role (tgbrg8120m000)

To link an employee to one or more roles, use the Employees by Role (tgbrg8120m000) session.

Roles by Business Process (tgbrg5106m000)

Use the Roles by Business Process (tgbrg5106m000) session to link one or more roles to a business process and its underlying structure of activities and sub-processes.

You can define up to six responsibility codes for each role.

If more than half of the activities in a business process must be linked to the same role, you are recommended to use the Roles by Business Process by Business Model (tgbrg3140s000) session.

If a role is linked to a business process with one or more sub-processes, those sub-processes will inherit that role.

To link a role to a business process:

- In the **Role** field, select the role you want to link to the business process.
- In the **Maximum Authorization Use Activity Authorizations** field, select the role's authorization for this business process. If you use the check box, the authorization will be used as modeled on activity level in the process. You can only specify an authorization in this field if the **Use Activity Authorizations** check box is cleared.
- Click **Save**

To see the business processes to which a role is linked:

- On the appropriate menu, click the **Role Browser**.

Key fields for the Roles by Business Process (tgbrg5106m000) session

Field	Description
Excluded	If this check box is selected,, the role is excluded from the business process. This is useful if a certain role must be excluded from one business process within a structure that must include that role.

Role sessions in the Modeler

Role by Business Process Activity Properties (tgbrg3150s000)

To maintain a role in relation to an activity by adding responsibility codes, and to define whether the role must be included from the business process, use the Role by Business Process Activity Properties (tgbrg3150s000) session. If a role applies to all or most activities in a business process, use the Roles by Business Process (tgbrg5106m000) session.

You can start the Role by Business Process Activity Properties (tgbrg3150s000) session in the following way:

- Right-click an activity in a business process and point to *Insert*.
- Click Role by Business Process Activity Properties (tgbrg3150s000).
- Click *Insert*.
  - From the Roles (tgbrg8110m000) session.
  - Select a role.

- Click **Edit**.

To maintain a role in relation to an activity, you can use one or more of the fields in the following to optimize the relationship.

Key fields for the Role by Business Process Activity Properties (tgbrg3150s000)

Field	Description
Inherited	If this check box is selected,, the role linked to the business process is automatically linked to the activity.
Excluded	If this check box is selected,, the role does not apply to the activity.
Authorization	Specify the level of authorization in this field for an employee with the role listed in the **Role** field. If you leave this field empty, **Full Authorization** applies. The authorization you assign in the current field cannot be larger than the authorization you have defined in the **Authorization** field in the Business Process Activities (tgbrg5122s000) session.
Responsibility Codes	In these fields you can link one or more responsibility codes to the role. A responsibility code is a task that specifies the role of the employee concerning an activity. For employees with the correct role to carry out the activity, at least one of the responsibility codes you link to a role must have the value *Yes* in the *Execute Activity* field.

Chapter 8
Wizards

8

Introduction

Wizards automate tasks through dialog boxes with users to help set the values of parameters; wizards can also be linked to business functions.

The combination of wizards and parameter setting rules is used to set the values of all the LN parameters. Parameter rules are only used to set parameters if the relation between a business function and a parameter is evident. In all other cases you must use wizards to set the parameters; however, you can set the values of the LN parameters manually.

Wizards (tgwzr1500m000)

The Wizards (tgwzr1500m000) session is used to create new wizards or to modify existing wizards. A wizard is used to group a number of wizard steps. The wizard does not contain any questions, but only shows a dialog box with an introductory text and, when finished, a dialog box with an end text.

Like most model items, wizards are version dependent.

To create a wizard, complete the following steps:

- In the **Wizard** field, specify a name for the wizard.
- If it is compulsory that the wizard is carried out in the business function model, in the **Mandatory** field, select the value **Yes**.
- In the **Owner** field, select the LN user who created or who is responsible for the wizard.
- Click **Save**

Key fields for the Wizards (tgwzr1100s000) session

Field	Description
Image	To illustrate the wizard, select a graphic representation shown in the Wizard dialog box.
Start Text	Starts the text editor so you can define the wizard start text. This text explains the function of the wizard, but does not ask any questions, because that is done in the individual wizard steps. If no start text has been defined, the first wizard step is directly shown when the wizard is carried out.
End Text	Starts the text editor so you can define the wizard end text. This text explains the result of the wizard or indicates you have completed all wizard steps.
Help Text	Starts the text editor so you can define the wizard Help text. This text explains the objective of the wizard.
Execute Wizard	Carries out the wizard without actually setting the parameter values

Wizard Steps (tgwzr2500m000)

The wizard steps are used to ask questions and to receive input. A wizard can have multiple wizard steps. Each step has one question and a range of possible answers that can only be limited by the domain of the parameter that must be set.

To create new wizard steps or to modify existing steps, use the Wizard Steps (tgwzr2500m000) session. Furthermore, this session can be used to modify additional data related to the wizard steps.

There are two ways to create wizard steps:

- You can import parameters from the Parameters (tgbrg9100m000) session. To select the parameters that must be set through one or more wizard steps, from the appropriate menu, select **Import Parameters**

  Next, a wizard step is created for each selected parameter. If you use this option, the value of the following fields is set automatically:
  - **Description**
  - **Domain**
  - **Default Answer**
  - **Mandatory**
  - **Question Text**

    - **Apply Constraint**
    - **Help text**
- You can define answers manually if you leave the **Domain** field empty. In this case, you must define the possible answers to the wizard question manually in the Wizard Step Answers (tgwzr2120m000) session.

Note

It is recommended you use the first user-friendly option to create consistent and correct wizard steps.

To manually create a wizard step:

- From the Sessions (ttadv2506s000) session in the **Zoom/Browse Session** field, select a session, to which you can zoom, and select a value from when you carry out the wizard.
- The values in the **Return Field** and the **Show Field** are defined automatically. The **Return Field** field is the value returned to the parameter; for example, the employee code 1234. The **Show Field** field is the field displayed in the dialog box to clarify the return field; for example, Mr. John Doe.
- In the **Domain** field, specify the domain of the data that must be returned to the parameter. A domain determines some characteristics of the **Return Field** field, such as data type such as string or integer, the length of the field, and allowed values. If answers are defined manually, this field cannot be modified.

Key fields for the Wizard Steps (tgwzr2100s000)

Field	description
Session to start	Select a LN session that can be started from the wizard step. This session must be a multi-occurrence session so an LN user can enter new records.
Business Process to start	Select a business process that can be started from the wizard step. This business process can be used to enter data by working through the activities included in the business process.
Question Text	Starts the text editor yo define the wizard step question text.
Wizard Constraint	Starts the text editor to define the wizard constraints.
Apply Constraint	Starts the text editor to define apply constraints.
Hint Text	Starts the text editor to define the wizard step hint text. Unlike the Help text, which gives a direct explanation, hint text directs users to the answer by referring to examples from obvious common practice.
Help Text	Starts the text editor so you can define the wizard step Help text. Help text is used to explain the question in more detail, or to place the question in perspective to parts of the reference or project model. It differs from hint text, which advises about possible answers.
Execute Wizard Step	Carries out the wizard step.

Wizard Step Answers (tgwzr2120m000)

To manually define answers for the wizard step, use the Wizard Step Answers (tgwzr2120m000) session.

Usually, the possible answers are set automatically based on the domain linked to the parameter. However, if an answer results in setting several parameters, it is impossible to define just one domain for this step. Therefore, to access this session, the **Domain** field in the Wizard Steps (tgwzr2100s000) session should be left empty.

To make a wizard step that sets several parameters, use this session to define the answers.

- Click **Apply Constraint** to start the text editor and define what needs to be done for each possible answer.
- Because the **Domain** field in the Wizard Steps (tgwzr2100s000) session is empty, the domains for the parameters must be included in the apply constraint.

Wizard Constraints

To start the text editor and define a wizard constraint, in the Wizard Steps (tgwzr2100s000) session:

- Click **Wizard Constraint**; alternatively, on the appropriate menu of the Wizard Steps (tgwzr2500m000) session, click **Edit Wizard Constraint**.

Wizard constraints define which nonstandard actions must be taken based on certain conditions. Therefore, a wizard constraint is only necessary when the actions involve more than setting a parameter. For example, If a certain question in a step is answered with **Yes**, another nested wizard is started.

Functions that are needed in wizard constraints can be included using the **Use menu option Options - Start Zoomsession to zoom in rule condition** option in the text editor's **Options** menu.

Example

```
IF answer = 10
THEN
Start. wizard ("demowiz1")
ELSE
Start. wizard ("demowiz2")
ENDIF
```

If the answer given to this wizard step is `10`, then demo wizard `1` is started. In case another answer is given, demo wizard `2` will be started.

Apply Constraints

To activate the text editor and define the apply constraints of the wizard step, in the Wizard Steps (tgwzr2100s000) session:

- Click **Apply Constraint**; alternatively, on the appropriate menu of the Wizard Steps (tgwzr2500m000) session, click **Edit Apply Constraint**.

Apply constraints define what must be done when you have worked through the wizard steps and choose to apply the answers.

Wizard step answers can be applied in the business function model of a project model. When you have answered all wizard steps, the question is asked if the answers you have given must be applied based on certain conditions.

The apply constraints are created automatically when parameters are imported in the Wizards (tgwzr1100s000) session. If you have created the wizard step answers manually, the apply constraints must be created manually.

Functions needed in the apply constraints can be included using the **Use menu option Options - Start Zoomsession to zoom in rule condition** option in the text editor's **Options** menu.

Example

```
IF answer = 10
THEN fill. Parameter ("tdpur000.cspn.4", 950)
| First position number for additional cost sets
ENDIF
IF answer = 20
THEN fill. Parameter ("tdpur000.cspn.4", 900)
ENDIF
```

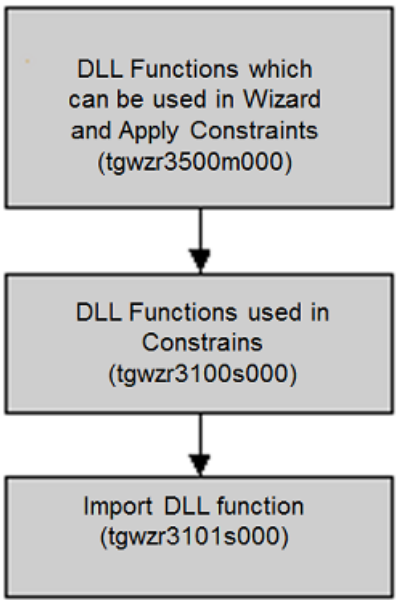
`10` and `20` are the sequence numbers of the answers. The parameters get the value `950` if the answer is `10`, and `900` if the answer is `20`.

DLL functions

A dynamic-link library is a piece of program script that can be used by several programs. Each DLL contains one or more functions to accomplish a certain task. Among other things, these functions can be used in a constraint.

In Wizards, DLL functions can be used for the following purposes:

- To check the answers given by a user against certain conditions, such as the presence of a business function in a business function model.
- To read parameters
- To read wizard step answers



DLL sessions in the Wizard procedure

Functions which can be used in Wizard and Apply Constraints (tgwzr3500m000)

To make the dynamic-link library (DLL) functions available, when you want to use it in the wizard constraints and to apply constraints, use the Functions which can be used in Wizard and Apply Constraints (tgwzr3500m000) session. The easiest way to get the functions you need is to import a DLL that includes the functions you need.

To import the DLLs you need, use the Import DLL Functions (tgwzr3101s000) session.

To start this session:

- On the appropriate menu of the Wizard Steps (tgwzr2500m000) session, click **DLL funcions for Wizards**

The functions included in this session are only related to the current modeling version, and not to one specific wizard or wizard step.

Import DLL Functions (tgwzr3101s000)

To import DLL functions from the Libraries (ttadv2533s000) session, use the Import DLL Functions (tgwzr3101s000) session. When a DLL is imported, all its functions are automatically included. Select the functions you need and delete the others. The DLL functions you import are listed in the Functions which can be used in Wizard and Apply Constraints (tgwzr3500m000) session.

Note

Always import DLL `tgwzr001`; this contains a number of predefined functions, such as a function to read wizard step answers and also to check the presence of a business function.

DLL Functions used in Constraints (tgwzr3100s000)

To view a DLL function with the DLL of which it is a component, use the DLL Functions used in Constraints (tgwzr3100s000) session. To activate the Program Scripts / Libraries (ttadv2530m000) session in which the DLLs are defined, click **DLL's**.

Chapter 9
Enterprise Structure Models

9

Introduction

The enterprise-structure model visualizes the multi site structure of an organization.

The multisite concept consists of enterprise units that contain entities that belong to the same financial and logistic company. Therefore, an enterprise unit's entities must all belong to the same logistic company, but a logistic company can be linked to multiple enterprise units.

This way, you can divide a logistic company over multiple countries, as the enterprise units can be located all over the globe with their own currency.

In an Enterprise-Structure Model you can place enterprise units on a map and specify relationships between them. Furthermore, a complete supply chain can be modeled because external business partners can also be included in the Enterprise Structure Model.

This can be done by adding enterprise units of category type **Supplier** or **Customer** to the model. One Enterprise Model depicts the situation of one LN package combination.

The Enterprise Structure Model serves to present an image of the relationships between companies and key entities and their related data. Therefore, the main building blocks of an enterprise structure model are:

- **Enterprise Units**
- **Financial Company**
- **Logistical Company**
- *Key entities*

Only the enterprise units are defined in the Dynamic Enterprise Modeler; all the other building blocks are defined in different EMM sessions in the Common package and are vital for the functioning of an Enterprise Structure Model. An enterprise unit is nothing more than a collection of key entities interrelated by the financial and logistical companies they belong to. Key entities are projects, warehouses, or departments linked to an enterprise unit. For more information about companies and entities, see the *User Guide for Multicompany Structures (U9504)*.

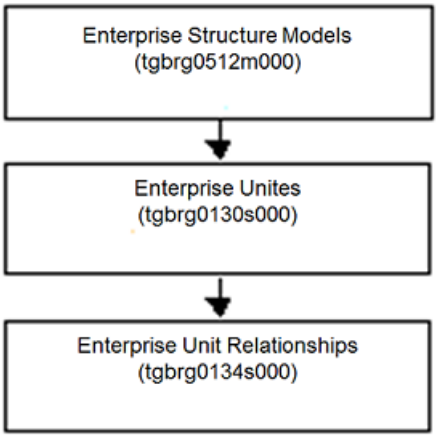
The financial company you link to an enterprise unit registers all accounting transactions that result from the activities carried out in the enterprise unit. These activities consist of the operational and logistical transactions caused by a logistical flow of goods and the performing of production, service, warehousing, and support activities. In contrast to a logistical company, a financial company cannot cross borders, because it is restricted to one currency area to do accounting and tax reporting of each site in each country's local currency. The financial company determines the currency system and currencies.

A logistical company is only used for logistical transactions, such as the production, sales and purchase, and transportation of goods.

The logistic and financial companies are linked to each other through enterprise units.

All kinds of relationships can be defined between enterprise units, such as goods flows, financial flows, and information flows. If a relationship is defined between two enterprise units, then that relationship applies to all entities belonging to those enterprise units.

This diagram shows the Enterprise structure model procedure



Enterprise structure modeling

This section explains the DEM sessions you must use when you construct an Enterprise Structure Model.

Note

You must define the majority of the data you want to incorporate in an Enterprise Structure Model in the EMM module, in Common Data.

Enterprise Structure Models (tgbrg0512m000)

To create and maintain Enterprise Structure Models, use the Enterprise Structure Models (tgbrg0512m000) session. You can create an Enterprise Structure Model from scratch, or base it on an existing Enterprise Structure Model.

To create an enterprise structure model, complete the following steps:

- In the **Enterprise Structure Model** field, specify the name for the Enterprise Structure Model.
- On the **Authorizations** tab, specify the model authorization.

Key fields for the Enterprise Structure Models (tgbrg0112s000) session

Field	Description
Map	Select a map used in the Modeler to visualize the graphical locations of the enterprise units.
Copied-From Model	If the enterprise structure model is copied from another enterprise structure model, select the model from which the current enterprise structure model is copied.
Copied-From Model Version	Select the version from which the current enterprise structure model is copied.

To view the enterprise units linked to the Enterprise Structure Model you have selected:

- Select an Enterprise Structure Model and click **Enterprise Structure Model Browser...**; alternatively, on the appropriate menu, click **Enterprise Structure Model Browser...**.

When you have defined the necessary data, you must start the Modeler to create enterprise units and the relationships between them. To do this:

- On the appropriate menu, click **Edit** icon, or **Edit Diagram...**

,

Enterprise Units (tgbrg0130s000)

To create and maintain enterprise units, use the Enterprise Units (tgbrg0130s000) session. To start this session, in the Modeler:

- Double-click an **Enterprise Unit** or right-click an **Enterprise Unit** and click **Properties**. An enterprise unit represents part of a multinational organization that meets the following conditions:
  - Has its own financial responsibility towards the overall organization.
  - Is confined to one country because it is linked to one financial company.
  - Consists of a set of entities which are parts of the LN application, such as warehouses and departments.
  - Represents, together with other enterprise units, a logistic company.

- Can either be a site, which is part of your organization or an external business partner such as a supplier or customer.

Enterprise units can be modeled to represent parts of the organization using the LN software, such as sales outlets, production plants, and distribution centers. They can also be modeled to represent external business partners not using the LN software, such as suppliers and customers. The function of the enterprise unit is defined by a category, such as sales outlet or production plant.

The applications also use the Enterprise Structure Model to decide whether it is possible to transfer goods from one enterprise unit to another; however, this depends on the relationships defined between the enterprise units in the Enterprise Structure Model.

To create an enterprise unit:

- In the **Enterprise Units** field, specify a name for the enterprise unit.
- In the **Enterprise Unit Category** field, select a category to classify the enterprise unit. An unlimited number of categories can be defined in the Enterprise Unit Categories (tgbrg0132s000) session. However, each category must be of category type:
  - **Site**
  - **Customer**
  - **Supplier**

  The selection you make here determines the function of the enterprise unit in the enterprise structure model. A site does not mean that one enterprise unit is the complete physical site. Several enterprise units of the category-type site can represent different financial units located at the same physical site. If a category is defined, a bitmap must be selected that decides the appearance of the enterprise unit in the Modeler.
- In the **Financial Company** field, select a financial company to let the applications determine what financial transactions must be carried out, which currencies, and which financial company must be used when logistical transactions take place between enterprise units.
- In the **Calendar Code** field, select a calendar code. A calendar code serves as an intermediate link between the financial company and a time zone. To process the financial data for a certain period, a financial company needs to be linked to a time zone.

Key fields for the Enterprise Units (tgbrg0130s000) session

Field	Description
Business Model	This field lets you link a business model to the enterprise unit. The link does not influence the applications. The business model determines which business control diagram you can select in the **Business Control Diagram** field.
Business Control Diagram	You can only select a business control diagram that is incorporated in the business model you have selected in the **Business Model** field. You can only select a single business control diagram, not an entire model. The business control diagram helps to explain how the enterprise unit functions.
Business Control Diagram Category	The business control diagram category is based on the control diagram you selected.

If you click **Entities by Enterprise Unit**, the key entities linked to the enterprise unit are displayed. You can define the link between an entity and an enterprise unit in the entity session itself.

Enterprise Unit Relationship (tgbrg0134s000)

To define a relationship between two enterprise units, use the Enterprise Unit Relationship (tgbrg0134s000) session.

To start this session in the Modeler:

- Double-click an enterprise relationship; alternatively, right-click an enterprise relationship and click **Properties**

To define a relationship between two enterprise units:

- In the **Relationship Category** field, select a category to specify the kind of flow that is going from one enterprise unit to another. In the Enterprise Unit Relationship Categories (tgbrg0145s000) session, you can create and maintain categories, and link one of the category types listed below to the relationship. Therefore, the category type determines the actual relationship.
  - **Document flow**
  - **Goods flow**
  - **Money flow**
  - **Order flow**
- In the **Effective date** field, specify the date when the relationship should come into force.
- In the **Expire date** field, specify the date when the relationship must finish.

- If a goods transfer takes place between two enterprise units that have the category type **Site** linked to them, you can select a goods transfer from the Goods Transfer (tcemm2150m000) session in the **Relationship Detail** field.

  To start the Goods Transfer (tcemm2150m000) session:

  - Click **Relationship Detail**
  - The relationship detail data determines the pricing type, invoicing, and default currency that must be used when goods are transferred between the two enterprise units.

Chapter 10
Business Models

10

Introduction

How to create and maintain business models. Business model is a generic term for a reference and a project model. Both models are built from a collection of model items created in the repository.

A reference model represents a line of business or business typology.

A project model represents a customer specific model.

This chapter identifies and explains the mandatory sessions related to business models.

Because all functionality related to a reference model is included in a project model, this chapter only deals with the creation of a project model. Therefore, almost every LN session that is discussed has its counterpart in the reference model business object, and can be started by carrying out the same steps as described in the project model. Some functionality described in this chapter only applies to project models. If this is the case, it will be stated in the text describing the project model specific sessions.

Project Models

A project model is an organization-specific model in an organization that can be constructed by basing it on a reference model. However, certain model items that can be used in a project model are not included in a reference model.

These model items must be imported directly from the repository. You can also ignore existing reference models and create a new project model. The Enterprise Modeler concept advises you to import a reference model into a project model and make the necessary modifications to have the project model fit the organization-specific requirements.

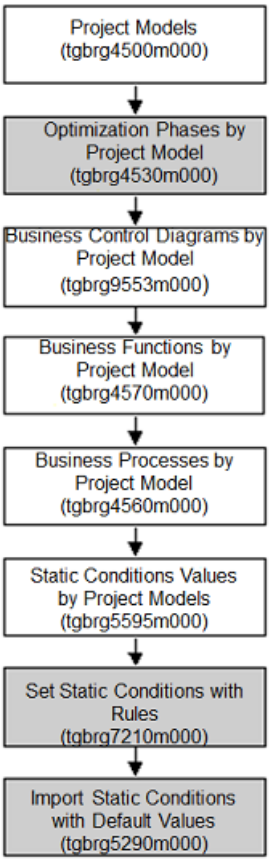
Several project models are possible.

A project model is built from a library repository of these model items:

- Business control model
- Business function model
- Business process model

You can link model specific Help to all the model items in a project model. Model specific Help should provide information about the function of a model item in a business model.

Any references in this text to the company-specific character of project models must be seen in a broader perspective. Actually, project models do not only relate to a specific organization, but to any specific organizational unit. This chapter describes project models by identifying and explaining the mandatory and optional sessions to create a complete project model in which all the model items are properly connected.



The project model procedure

Project Models (tgbrg4500m000)

The Project Models (tgbrg4500m000) session is the main session for building project models; from this session you can access every model item and corresponding functionality required to build a consistent project model.

To do this:

- From the appropriate menu of the different project model related sessions, click the icons or select the appropriate options.

To create a project model:

- Click *New*.
- In the **Project Model** field, specify a name for the project model.
- In the **Owner** field, select the LN user who created the project model or is responsible for its maintenance.
- Click **Save**.

Key fields for the Project Models (tgbrg4100s000) session

Field	Description
Copied-From Type	This field shows if the project model is copied from a reference model or another project model. Therefore, it can have the value reference model or project model.
Copied-From Model	This field is automatically filled with the name of the project model or reference model from which the current project model is copied. Copying can be done using the Copy Reference Model into Project Model (tgbrg4205s000) session.
Copied-From Model Version	The version of the reference model or project model from which the current project model is copied.
Expired	In this field you can indicate if the project model is still valid.

Import reference model

To import a reference model into the selected project model:

- On the appropriate menu of the Project Models (tgbrg4500m000) session, click **Import Reference Model ...**

The reference model you import must reflect the situation in the organization typology of the organization for which the project model is created; this way, you only need to enter the organization-specific details that differ from the default that applies to the organization typology.

To select the reference model you want to import into the Project Models (tgbrg4500m000) session, click **Import Reference Model ...**; this starts the Reference Models (tgbrg3500m000) session. During the import, a snapshot of the reference model is made, after which the snapshot is placed in the project model.

This means:

- The model items you can see in the project model are references to the physical model items in the repository.
- Any changes made in the reference model after the import does not affect the project model, or vice versa.

Optimization Phases

Optimization phases are stages in the business process improvement cycle, on the basis of which future changes in the organization can be researched and planned.

Optimization phases only apply to project models and can be linked to business functions, and business processes. Therefore, linking optimization phases to these model items will only make them active during the phases to which they are linked.

Example

You can determine that a certain business function must only be used starting from the first optimization phase, instead of from the initial implementation phase.

In the reference model you could only specify which business functions, processes, and so on had to be used, and which ones were not to be used.

In the project model this is specified by the optimization phase.

Optimization Phases by Project Model (tgbrg4530m000)

To create and maintain the optimization phases for the selected project model, use the Optimization Phases by Project Model (tgbrg4530m000).

To start this session:

- On the appropriate menu of the Project Models (tgbrg4500m000) session, click *Define phases*, or **Optimization Phases by Project Model**.

To create an optimization phase, complete the following steps:

- Click *New*
- In the **Optimization Phase** field, specify a name or code for the optimization phase.
- In the **Color of phase** field, select a color that represents the optimization phase in the Modeler. Business functions linked to this optimization phase can be recognized in the Modeler by the selected color.
- In the **Start Date** field, specify the date when the optimization phase must become effective.
- In the **End Date** field, specify the date when the optimization phase must expire.
- Click **Save**

Business control model

The highest level in a project model is made up of a business control model. This model can consist of one or more business control diagrams that visualize how the primary process takes place within the organization, and how this process is controlled.

Business Control Diagrams by Project Model (tgbrg9553m000)

To build a business control model by importing business control diagrams you initially created in the repository, use the Business Control Diagrams by Project Model (tgbrg9553m000) session.

To start this session:

- On the appropriate menu of the Project Models (tgbrg4500m000) session, click **Business Control Model**, or **Business Control Model**.

The mutual relationships between business control diagrams are defined in the repository, and cannot be changed in a project model.

When you import a business control diagram from the repository, the following question can appear: *The Business Control Diagram has Child BCDs in the repository. Do you want to link these children to your model?*

Click `Yes`, if you want to include the child business control diagrams in the business control model.

Note

Remember, changes to a business control diagram in the repository apply to all reference and project models in which the diagram is included.

To create a business control model, complete the following steps:

1. Click *New*
2. In the **Business Control Diagram** field, select a business control diagram you want to include in the project model. From this field you can zoom to the Business Control Diagrams (tgbrg9550m000) session and select a business control diagram from the repository.

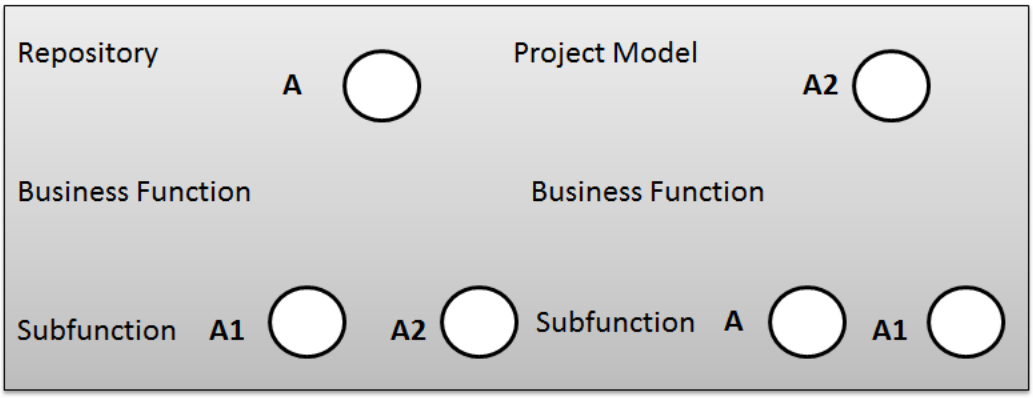
Business function model

A business function model is built from a selection of business functions initially created in the repository. The presence, or absence, of business functions in the business function model during the implementation phases of the LN software is used for the following purposes:

- To select and configure business processes based on transformation setting rules and static condition setting rules.
- To set the LN application parameters based on parameter-setting rules.

Business functions can be defined in the repository in a hierarchical structure; therefore, a function can have subfunctions. This structure is used as an aid while defining the business functions, and does not have to be maintained when you import business functions into a project model.

For more details, see the Options when Inserting a Business Function from the Repository (tgbrg3270m000) session.



Business functions that appear in several business control diagrams only appear once in the business function model. Business functions at the lowest level of the hierarchy are implementation variants of business functions, referred to as business function variants or options.

Business Functions by Project Model (tgbrg4570m000)

Use the Business Functions by Project Model (tgbrg4570m000) session for the following purposes:

- To restructure the business function model according to the business functions that must be used in the project model.
- To define the optimization relationships; these indicate that a certain business function variant is an optimization of another business function variant.
- To define the optimization phases; these indicate when a certain business function variant must be implemented.

To start this session:

- Select a project model and on the appropriate menu of the Project Models (tgbrg4500m000) session.
- Click **Business Function Model...**, or **Business Function Model...**.

In this session you cannot modify business function data; this can only be done in the Business Functions (tgbrg2500m000) session in the repository. You can only import business functions from the repository into the Business Function Model and set up a new hierarchical structure.

To create a business function model:

- In the **Business Function** field, select a business function you want to include in the business function model.

- From this field you can zoom to the Business Functions (tgbrg2500m000) session and select a business function from the repository.

Key fields for the Business Functions by Project Model (tgbrg4170s000)

Field	Description
External Code	Specify a code that indicates the position of that business function in relation to other business functions.
Parent Business Function	Select a business function to which the current business function will be linked, and which is one level above the current business function.
Wizard	Zoom to the Wizards (tgwzr1500m000) session and link an existing predefined wizard to the business function

Options when Inserting a Business Function from the Repository (tgbrg3270m000)

Importing a business function from the repository into a project model, the Options when Inserting a Business Function from the Repository (tgbrg3270m000) session is started.

This session can be used to indicate the aspects of the business functions you selected from the repository, which you want to include in the business function model.

When you import business functions from the repository, complete the following steps:

- To import those business functions that are linked on lower levels to the business function, select the **Also insert child business functions from the repository** check box. This way, you copy a part of the business function structure from the repository to the project model.
- To overwrite the data listed below when you import the business function to the business function model, select the **Overwrite business function attributes of existing children** checkbox:
  - Parent business function
  - Wizard
  - External code
- To copy the parent-child relationship from the repository to the business function model, select the **Recover relationships with existing children** check box.
- Click **Continue...**

Optimization Phases by Business Function (tgbrg4535m000)

To link one or more optimization phases to a business function, use the Optimization Phases by Business Function (tgbrg4535m000) session.

To start this session:

- On the appropriate menu of the Business Functions by Project Model (tgbrg4570m000) session, click the **Link Phases to Business Function...**, or **Link Phases to Business Function...**

To link an optimization phase to a business function, complete the following steps:

- Select a business function.
- Click *New*
- In the **Optimization Phase** field, select the optimization phase you want to link to the business function.
- Click **Save**

Carrying out wizards

If all the relevant business functions have been included in the business function model, you can set the parameter values by executing the wizards linked to the business functions.

There are two ways in which you can carry out the wizards:

- Firstly, you can activate the **Wizard Browser**; to do this:
  - On the appropriate menu of the Business Functions by Project Model (tgbrg4570m000) session, click **Wizard Browser**.
  - This option activates a browser with all the wizards linked to the business functions in the business function model.
  - To carry out the wizards listed here:
    - On the appropriate menu, double-click the *Wizard* icon, or **Execute Wizard**.
  - When a part of a wizard has been carried out and the answers have been saved, a red check mark is placed through the *Wizard* icon.
- Secondly, in the Modeler, you can click the *Wizard* icon below a business function.

To view the wizards represented in a tree structure and linked to the business functions present in the business function model, in the Wizard Browser's appropriate menu, cancel the **Show only Wizards** option.

You can cancel the execution of a wizard even if all the steps are incomplete. If you do this, you can save the wizard step answers you have already given. If a wizard has not been completely finished, the check mark is placed through the icon in the **Wizard Browser**. Therefore, it is important to remember if a wizard was carried out without completing all the wizard steps.

Wizard Answers by Company by Project Model (tgwzr4501m000)

When you have carried out all wizard steps, the following question is asked:

- **Show wizard step answers ?**
  - If you click **Yes**, the Wizard Answers by Company by Project Model (tgwzr4501m000) session is started.

Use this session to modify the answers you have initially given. Furthermore, you can execute the complete wizard again, or execute a particular step and change the given answer in this way.

To change the given wizard step answers, complete the following steps:

- In the **Answer** field, select a wizard step answer that must replace the answer you have initially given. The answers you can choose are based on the domain linked to the parameter whose value you want to set by the wizard.
- Click **Save**

Note

If the **Applied** check box is selected, the wizard-step answers will be applied in the business function model. However, the wizard-step answers will not be applied until you exit the business function model.

Closing the business function model

When you have included all the relevant business functions in the business function model, and all the wizards have been carried out, the business function model can be closed. When you exit the business function model, the following questions can appear, depending on what type of data was modified:

- **Check Consistency?**
- **Transform Business Function Model to Process Model?**
- **Set Static Conditions based on Rules?**
- **Set Parameters based on Rules?**
- **Write Parameters to the Database?**
- **Apply Wizards?**
- **Write Parameters to the Database?**

These questions refer to steps that can also be taken manually; they are further explained in other sections of this chapter.

Check Project Model Consistency (tgbrg4220m000)

To check whether the business function model is created according to the consistency rules defined in the repository:

- Start the Check Project Model Consistency (tgbrg4220m000) session
- To start the session, on the appropriate menu of the Business Functions by Project Model (tgbrg4570m000) session, click **Check Project Model Consistency**

When you create a business function model, you can make consistency errors; for example, you can forget to include business functions that should be included according to the consistency rules you defined in the repository.

The check will be carried out for the combination of the current modeling version and project model. You can also specify an optimization phase for which the check should be carried out. If no phase is specified, the consistency check is carried out for all optimization phases defined for the project model.

The result of the consistency check is displayed in a message box, while the rules are printed to the device that you select. If a given rule is not met, the result is also printed.

Set Current Optimization Phase

To start the Optimization Phases by Project Model (tgbrg4530m000) session:

- On the appropriate menu of the Business Functions by Project Model (tgbrg4570m000) session, click **Set All Optimization Phases as Current**
- In this session you can select all phases at the same time; to do this, click *Select All*, or select one specific optimization phase.
  - Because of the selection you made, the Business Functions by Project Model (tgbrg4570m000) session only shows those business functions linked to the optimization phase you have selected as current.
  - If you click *Select All*, all business functions linked to the project model are displayed.

Set all Optimization Phases as Current

On the appropriate menu of the Business Functions by Project Model (tgbrg4570m000) session:

- Select **Set All Optimization Phases as Current**
- Assign all optimization phases as current.

This means all business functions in the project model are displayed in the Business Functions by Project Model (tgbrg4570m000) session.

Business function in the Modeler

When you have imported the business functions from the repository into the project model, you can insert optimization relationships; these indicate a certain business function variant is an optimization of another business function variant.

Optimization relationships are graphically represented by arrows between business function variants, at the lowest level of the business function hierarchy.

To insert an optimization relationship:

- Click **Text Optimization Relationship** and drag the arrow between two business function variants.

  To import extra business functions from the repository in the Modeler

- Click **Parent Business Function**

  To start the Business Function by Project Model Properties (tgbrg4171s000) session:

- Double-click, or right-click, the inserted business function and click **Properties**

To import a business function from the repository into the business function model, complete the following steps:

- Select the business function you want to import to the **Business Function** field.
- Before you specify an external code, the Options when Inserting a Business Function from the Repository (tgbrg3270m000) session is automatically started.
  - In this session, you can indicate if you want the relationship the imported business functions has with child business functions to be included in the business function model.
- In the **External Code** field, specify an external code.
- The parent business function shown in dimmed mode in the **Parent Business Function** field is predefined, and depends on the level you are in within the business function model.
- Click *OK*

When you have inserted a business function in the business function model, you can link it to a child business function.

To do this:

- Right-click the business function
- Point to *Insert*, and click *Child*.
- The Business Functions (tgbrg2500m000) session is started.
- From here, you can select a business function and link it to the parent business function.

You can also link a business function to an optimization phase in the following way:

- Right-click the business function.
- Point to *Insert*, and click *Phases*
- Next, a window opens. Click *Insert*.
- In the Optimization Phases by Project Model (tgbrg4530m000) session, select an optimization phase.
- Click *OK*

Business process model

The combination of business processes related to a project model is referred to as a Business Process Model.

Business processes reflect the working order of an organization. When you have defined these processes in the repository, they can be included in a project model. The Business Process Model can be made specific for an organization by including the relevant processes from the repository.

This can be done automatically by carrying out the transformation rules, which are based on the selected business functions in the Business Function Model, or by importing the relevant business processes from the repository.

The results of the implementation choices that influence the working order in an organization are displayed in the business processes by activated and de-activated paths for each optimization phase; this is done automatically by carrying out the static condition setting rules defined in the repository.

Business Processes by Project Model (tgbrg4560m000)

To import business processes from the repository into a project model, and to link process implementation text to them, use the Business Processes by Project Model (tgbrg4560m000) session. To start this session:

- On the appropriate menu of the Project Models (tgbrg4500m000) session, select a project model and click the **Business Process Model**, or **Business Process Model...**.

However, you cannot use this session to modify business process data; this can only be done in the Business Processes (tgbrg5500m000) session in the repository.

To manually import a business process from the repository into a project model, complete the following steps:

- Click *New*
- In the **Sequence** field, specify a number that determines the sequence in which the business processes are displayed in the Business Processes by Project Model (tgbrg4560m000) session, and in the **Process Browser**.
- In the **Business Process** field, select the business process you want to import.
- Click **Save**

Key fields for the Business Processes by Project Model (tgbrg4160s000) session

Field	Description
Set by Rule	The transformation rule, as a result of which the business process is included in the project model.
Subprocess	If you select this check box, the business process is a nested process. Therefore, the process is incorporated into another business process.
Use within Dynamic Menu Browser	If you select this check box, the business process can be used in the Process Browser.

Optimization Phases by Business Process (tgbrg4140m000)

To link one or more optimization phases to a business process:

- Use the Optimization Phases by Business Process (tgbrg4140m000)
  - To start this session, on the appropriate menu of the Business Processes by Project Model (tgbrg4560m000) session, select a business process and click the **Link Phases to Business Process...**, or **Link Phases to Business Function...**
- If a business process is included in the Business Processes by Project Model (tgbrg4560m000) session because of carrying out the transformation rules, the business process is linked to the same optimization phases as the business function to which it is linked.

The result of linking these optimization phases to the business processes is that the processes are included when Process Browsers are created by optimization phase.

Set Current Optimization Phase

To start the Optimization Phases by Project Model (tgbrg4530m000) session:

- On the appropriate menu, click *Set Current Optimization Phase*
- Here, you can select all phases simultaneously by clicking the *Select All* button, or you can select one specific optimization phase.

Therefore, the Business Processes by Project Model (tgbrg4560m000) session only shows those business processes linked to the selected optimization phase.

To display all business processes linked to the project model, click *Select All*.

Set all Optimization Phases as Current

To assign all optimization phases as current, on the appropriate menu of the Business Processes by Project Model (tgbrg4560m000) session, click *Set all Optimization Phases as Current*.

This means all business processes in the project model are displayed in the Business Processes by Project Model (tgbrg4560m000) session.

Transform Function Model to Process Model by Project Model (tgbrg4200m000)

To include business processes in a project model using the Business Function Model and the transformation rules linked to the business functions in the Business Function Model, use the Transform Function Model to Process Model by Project Model (tgbrg4200m000) session.

To start this session:

- On the appropriate menu of the Business Processes by Project Model (tgbrg4560m000) session, click **Transform B. Functions into B. Processes**

This session automatically imports the relevant business processes based on the business functions included in the Business Function Model. This transformation is carried out by evaluating the transformation setting rules. These rules select certain business processes based on the presence of business functions in the Business Function Model. Before the actual transformation takes place, you must specify whether the existing model must be purged, or whether existing business processes may be overwritten by new corresponding processes.

The results of the implementation choices that influence the working order in an organization are displayed by activated and de-activated paths in the business processes.

The transformation is carried out for the combination of the current modeling version and the selected project model.

To transform the Business Function Model to a Business Process Model, complete the following steps:

- If you select the **Test Run** check box, a report is printed that consists of the hypothetical outcome of running the session. However, the Business Function Model is not actually transformed into a Business Process Model.
- If you select the **Purge Existing Model** check box, the business processes present in the project model that do not meet the conditions of the transformation rules are removed from the project model.
- If you select the **Add Subprocesses** check box, the subprocesses linked to the business processes that meet the conditions of the transformation rules are incorporated in the project model.
- Click **Transform**

Import Range of Business Processes (tgbrg3260m000)

To import a range of business processes from the repository into the Business Processes by Project Model (tgbrg4560m000) session, without importing the business processes manually, use the Import Range of Business Processes (tgbrg3260m000) session.

To start this session:

- On the appropriate menu of the Business Processes by Project Model (tgbrg4560m000) session, click **Import Range of Business Process...**
- The imported business processes become part of the current project model.

To import a range of business processes from the repository into the project model, complete the following steps:

- In the **Business Process** field, select the range of business processes you want to import.
- The options in the **Sequence Settings** field determine the sequence numbers after the import.
- Click **Import**

If you select the **Overwrite** check box, the business processes present in the project model are overwritten by the business processes you import.

Expand and collapse process structure

If you click **Expand Process Structure** on the appropriate menu, the subprocesses linked to the business processes you have selected are displayed in the Business Processes by Project Model (tgbrg4560m000) session.

These subprocesses receive a sequence number that falls in the same series as the sequence number of the main business process. The subprocesses are not physically copied into the project model, but a link is made to the subprocesses in the repository.

If you use collapse, the Process Browser in worktop and **LN UI** will always start with the Main Business Process; this will take longer to build up.

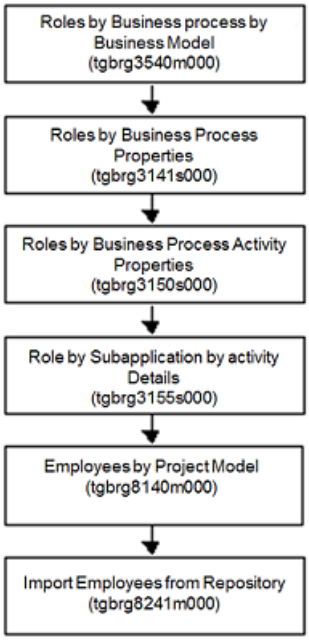
Example

```
Sequence number business process

90 MPU13 Purchase Order Entr

Subprocesses

91 DPU001 Perform PO Header Actions

92 DPU002 Perform PO Line Actions

93 DPU003 Issue Purchase Order
```

If you click **Collapse Process Structure** on the appropriate menu, the subprocesses linked to the business processes you have selected will no longer be displayed in the Business Processes by Project Model (tgbrg4560m000) session.

The roles/employees procedure

The aim of this procedure is to define which roles are authorized to carry out which business processes, activities, and subapplications in a project model. However, the basic part of the authorization procedure takes place in the repository. For more information, see *Section 8.3 Roles in Chapter 8 Organization Modeling*. The roles/employees procedure further deals with the linking of employees to a project model.



The project model roles/employees procedure

Roles by Business Process by Business Model (tgbrg3540m000)

To list the roles by business process, use the Roles by Business Process by Business Model (tgbrg3540m000) session. To start this session:

- On the appropriate menu of the Business Processes by Project Model (tgbrg4560m000) session, click the **Link Roles to Business Processes...**, or **Link Roles to Business Processes...**

A role is created, and initially linked to a business process in the repository. However, you can also link a role to a business process solely in a project model; to do this, click *Copy link from Business Process in Repository* on the appropriate menu to copy the link from the repository to the project model.

If you copy the link to the project model, you can change data regarding the relationship between the role and the business process. The changes you make will only take effect in the *project model*, and not in the repository.

To edit a role in the Modeler, use the Role by Business Process Properties (tgbrg3141s000) session, or the Role by Business Process Activity Properties (tgbrg3150s000) session. If you use these sessions, you do not need to copy the role link to the project model.

Note

Roles linked to a business process are inherited at lower levels by activities and nested processes, unless you link roles separately to the activities within a business process.

To define the role settings by business process in a project model, complete the following steps:

- To link a role to a business process only in the project model, click *New*
- In the **Role** field, select a role from the Roles (tgbrg8110m000) session and link it to the business process in the project model.
- To edit a link between a role and a business process that already exists in the repository, click **Copy Role link from BP in Repository**.
- Click **Save**

Key fields for the Roles by Roles by Business Process by Business Model (tgbrg3140s000) session

Field	Description
Excluded	If this check box is selected,, the role is no longer authorized to carry out the business process. Therefore, the **Responsibility Codes** fields are dimmed.
Use activity authorizations defined in Repository	If this check box is selected,, the authorization defined for the activities of type application in the repository also applies to the role you have selected in the **Role** field.
Maximum Authorization	The level of authorization an employee has when they want to carry out the activities of type application in the business process. You can only select a value in this field if the **Use activity authorizations defined in Repository** check box is cleared.
Responsibility Codes	At least one of the responsibility codes you select here must have the value **Yes** for the employees linked to the selected role to be authorized to carry out the business process.

Role by Business Process Properties (tgbrg3141s000)

To add a role, define the authorization, add or change responsibility codes, and define whether the role must be excluded from the business process, use the Role by Business Process Properties (tgbrg3141s000) session.

To start this session:

- right-click in the business process diagram, not a model item, and click **Roles**
- Next, in the window that appears you can click the following two options; for the second option to become active, you must first select a role:
  - To add a role to the business process, select a role in the Roles (tgbrg8110m000) session and click *Insert*
  - To modify role data in the Role by Business Process Activity Properties (tgbrg3150s000) session, click **Edit**

The changes you make only apply in the project model.

Key fields for the Role by Business Process Properties (tgbrg3141s000) session

Field	Description
Excluded	If you select this check box, the role is no longer authorized to carry out the business process; therefore, the Responsibility Codes fields are dimmed.
Maximum Authorization	The level of authorization an employee with this role must carry out in the business process.
Responsibility Codes	At least one of the responsibility codes you select here must have the value **Yes**, in order for the employees linked to the selected role to be authorized to carry out the activity.

Role by Business Process Activity Properties (tgbrg3150s000)

To link a role to a business process activity

- Add responsibility codes to roles
- Link text to roles
- Define whether the role must be included or excluded from the business process.

Use the Role by Business Process Activity Properties (tgbrg3150s000) session.

To start the session:

- Right-click an activity in the Modeler and select the *Insert* option.
- Click *Roles by Business Process Activity*
- In the window that appears, you can select the following two options:
  - To add a role to the activity, select a role in the Roles (tgbrg8110m000) session, and click *Insert*
  - To modify role data in the Role by Business Process Activity Properties (tgbrg3150s000) session, click **Edit**

The changes you make in the relationship between the role and the activity are only effective in the project model. If a role applies to all, or most activities in a business process, use the Roles by Business Process by Business Model (tgbrg3540m000) session; this offers the following two benefits:

- You do not have to link a role to all the activities separately.
- You only have to exclude the role from the activities to which it does not apply.

Only use this session if you want to link a role to a limited number of activities, or to exclude a role from some activities.

Key fields for the Role by Business Process Activity Properties (tgbrg3150s000) session

Field	Description
Inherited	If this check box is selected,, the role is initially linked to the business process in which the current activity is incorporated; therefore, the role is automatically linked to the activity.
Excluded	If this check box is selected,, the role is no longer authorized to carry out the activity; therefore, the **Responsibility Codes** fields are dimmed.
Authorization	The level of authorization an employee with this role must carry out in the activity.
Responsibility Codes	At least one of the responsibility codes you select here must have the value **Yes** for the employees linked to the selected role to be authorized to carry out the activity.

Employees by Project Model (tgbrg8140m000)

Only use the Employees by Project Model (tgbrg8140m000) session if you have selected the **Use Employee - Project Model link** check box in the DEM Parameters (tgbrg0135s000) session.

If you have selected this check box, an employee must be included in the project model to start their Process Browser. If the **Use Employee - Project Model link** check box is cleared, no check is carried out to determine whether an employee is linked to the project model.

Use this session to link the employees, who are going to use the business processes at run-time, to the project model. To be authorized to carry out the business processes, the employees you enter here must be linked to one or more roles in the repository in one of the following sessions:

- The Employees by Role (tgbrg8120m000) session.
- The Roles by Employee (tgbrg8122m000) session.

Roles are used to group different employees with the same responsibilities and can be linked to business processes and activities. This way, employees can carry out the activities that are part of their job.

To start this session:

- On the appropriate menu of the Project Models (tgbrg4500m000) session, click **Employees by Project Model**

To link an employee to a project model, complete the following steps:

- In the **Optimization Phase** field, select an optimization phase during which the selected employee can carry out the activities for which they are authorized. If you leave this field empty, the employee can carry out the activities for which they are authorized during all the optimization phases.

- In the **Employee** field, select an employee you want to link to the project model.
- Click **Save**

Import Employees from Repository (tgbrg8241m000)

- To import a selected range of employees from the repository into a combination of one or more project models and an optimization phase, use the Import Employees from Repository (tgbrg8241m000) session.
- To start this session, on the appropriate menu of the Employees by Project Model (tgbrg8140m000) session, click **Import Employees**

An employee can switch between run-time project models in the Process Browser if they are linked to different project models. The link to numerous project models can be established using the current session. Which business processes the employee sees, and what activities the employee can start from their Process Browser, depends on the roles they are linked to.

To import employees into a project model, complete the following steps:

- In the **Employees** field, select the range of employees you want to import.
- In the **Project Models** field, select the project models to which the employees must be linked.
- Click *Import*

Key fields for the Import Employees from Repository (tgbrg8241m000) session

Field	Description
Optimization Phase	The optimization phase to which the imported employees are linked and during which they can carry out business processes and activities.
Employee Groups	If you select this checkbox, you can specify a range of employee groups to which an employee must be linked to be imported into the project model.
Rules	If you select this check box, you can specify a range of roles to which the employee must be linked to be imported into the project model.

Authorization review and drill back

The term “Drill back” must be read as: "Start an LN session from outside LN through Infor Ming.le ". This can be initiated by another user and without providing any authorization context. For example; an approval step from a workflow set up in ION. In this approval step you must view specific LN data to decide on approval or rejection. To set up the correct authorization for your DEM users to drill back from Infor Ming.le into LN you must specify several sessions with information.

The classic method to start a session is by selecting a session by the user within an UI. In the LN UIs you can use:

- Menu Browser
- Process Browser
- Process Viewer
- Run Program. The menu option “Call session by Code”. This option can start a session by entering the session code.

When a session is started from the “Menu Browser” or “Run Program”, the AMS authorizations is used. AMS session authorization is the highest (aggregated) authorization level defined for a certain user over all assigned AMS roles. When a session is started from the “Process Browser” or “Work Area” the DEM generated authorization advice is used (based on the “active” DEM role). For DEM end-users the UI settings must only have granted access to the “Process Browser” and/or “Process Viewer” in order to prevent confusing authorization situations where AMS is not the same as DEM. Do not select the menu browser and “Call Session by Code” in the User Data Template (ttams1110m000) session.

You can gather and view the authorization information for the AMS and DEM user with these sessions:

- Aggregate Authorization Data (tgbrg9298m000)
- Display Authorization Data (tgbrg9598m000)

Ensure you specify the Aggregate Authorization Data (tgbrg9298m000) session with the correct information. With the Display Authorization Data (tgbrg9598m000) session all authorization data per user is listed. With this list you can review the authorizations for the LN users and consider necessary changes.

Within the UIs personalization options are available to overrule and hide those parts of the UI that are initially enabled on the back-end. View sets are maintained within the View Modeler (tlvwm0601m000) on the back-end where custom views overrule Standard Views as delivered by Infor. Run the View Modeler from Web UI. In the View Modeler both Standard (read-only and as delivered by Infor) as configurable Custom view sets are shown

Drill back authorization

Currently Permissions for starting sessions by sending a drill back request from Infor Ming.le to LN are managed through AMS permissions. This is not recommended for DEM users. You do not want DEM users without the correct role/permission to be able to start every single session from AMS perspective in the user interface. The DEM authorization must stay intact and applied for DEM users by mapping the Drill back View IDs to DEM activities within a DEM business process.

To authorize your DEM users to drill back from Ming.le into LN you must ensure that your DEM users have the correct drill back authorities.

DEM provides mapping between a View ID and a default authorization level and mapping from View ID towards an activity within a Business process.

Use these sessions for setting up a correct drill back to LN.

- For DEM end-users the UI settings must only have granted access to the “Process Browser” and/or “Process Viewer” in order to prevent confusing authorization situations. You can specify this in User Data (ttaad2500m000) session.
- In the DEM Parameters (tgbrg0135s000) session you must specify the Drill Back Authorization field.
- The default “Drill back authorization” is overruled by authorizations specified per View ID and Session in the Drill Back Authorization (tgbrg9040m000) session.
- View ID and Session authorizations specified in Drill Back Authorization (tgbrg9040m000) are overruled by authorization settings in the Mapping to Model/Activity settings in Drill Back Mapping (tgbrg9041m000) session.
- Use the Change Modeling Version for Drill Back (tgbrg1041m000) session to copy the specified authorizations in the Drill Back Mapping (tgbrg9041m000) session, to another model-version. This session comes in handy when upgrading to another project model version.

Diagram Objects Toolbar

Generic buttons

The Diagram Objects toolbar shows the graphical objects you can insert in the diagram. These buttons are generic for all diagram types:

Button	Description
	To turn on or off the automatic creation of a relationship (connector) between an existing (selected) diagram object and a newly inserted diagram object
	To switch to the ‘select mode’ to be able to select one or more graphical objects in the diagram
	To insert a graphical object that contains information regarding the diagram like diagram code, description, version, creation date and last modification date
	To insert a note that is directly readable in the diagram

The diagram specific buttons in the Diagram Objects Toolbar are explained here:

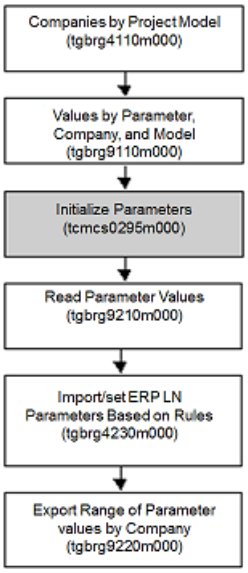
- *Diagram Objects Toolbar (p. 119)*
- Business Control Diagram objects toolbar
- Business Function Diagram objects toolbar
- Business Process Diagram objects toolbar
- Entity Relationship Diagram objects toolbar

The parameter procedure

The aim of this procedure is to set the LN application parameters based on the implementation decisions you make using the DEM-Tool.

To set the parameters:

- Import them with their current values into the combination of a project model, version, and company in which they must be implemented.
- Adjust the values for the project model, version, and company; set the parameter values in one of the following three ways:
  - By evaluating the parameter-setting rules
  - By carrying out the wizards
  - Manually
- The new parameter values must be exported to the LN applications to bring them in conformity with the implementation decisions.



The parameter procedure in a project model

Companies by Project Model (tgbrg4110m000)

To link one or more companies to a project model, use the appropriate Companies by Project Model (tgbrg4110m000) session. To start this session, on the menu in the Project Models (tgbrg4500m000) session, click **Companies by Project Model**. A company is a separate part of a database that contains data such as the following:

- Item codes and descriptions
- Order policy and order system for items
- Customer and supplier data
- Order procedures

To link a company to a project model, complete the following steps:

- In the **Company** field, select the company you want to link to the project model.
- Click **Save**

Note

If the parameters are set by the Dynamic Enterprise Modeler, the link can only be established for companies that were linked to the selected project model.

You cannot run the Values by Parameter, Company and Model (tgbrg9110s000) session, unless you have linked at least one company to the project model.

Values by Parameter, Company, and Model (tgbrg9110m000)

To import parameters individually from the master data, and maintain their values for a combination of a company and a project model, use the Values by Parameter, Company, and Model (tgbrg9110m000).To start this session:

- On the appropriate menu of the Project Models (tgbrg4500m000) session, click **Parameter Setting by Model...**.
- When you start this session, the parameters, if available, are shown for the project model you have selected in the Project Models (tgbrg4500m000) session. To change the parameter values of the LN applications according to the implementation decisions made using the Dynamic Enterprise Modeler, complete the following steps:
  - The current parameters and parameter values in the LN applications must be imported for each company into this session, with function as a temporary buffer.
  - The values must be adjusted to the specified project model, version, and company, which are mainly done based on the rules that were defined.
  - The new values must be exported to the LN applications.

To manually import parameters, complete the following steps:

- In the **Parameter Field** field, select a parameter you want to use in the project model.
- In the **Value** field, select the value the parameter must have in the project model.
- Click the **Save**

Key fields for the Values by Parameter, Company and Model (tgbrg9110s000) session

Field	Description
Written to Database	Specifies the status of the parameter value in the database. This field can have the following values: ■ **Not yet written**: The related parameter in the database has not been updated. ■ **Written to Database**: The related parameter in the database has been updated. ■ **Write failed**: Due to an error, the related parameter in the database has not been updated.
Set by	Indicates how the parameter value was set; it can have the following values: ■ **Rule**: The value of the parameter is set by a parameter-setting rule. ■ **Wizard**: The value of the parameter is set by a wizard. ■ **Manual**: The value of the parameter is changed by the current session. ■ **Database**: The value of the parameter is taken over from the parameter value in the database.
Set by Rule	Displays the parameter setting rule that set the parameter value.
Set by wizard	Displays the wizard that set the parameter value.

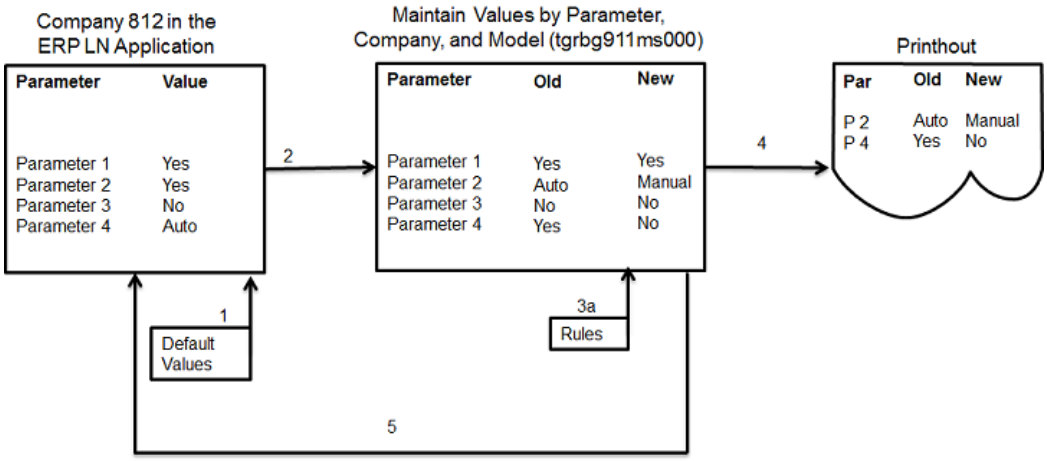
Initialize Parameters (tcmcs0295m000)

To set the default values of the parameters in the LN applications, use the Initialize Parameters (tcmcs0295m000) session. To start this session, on the appropriate menu of the Values by Parameter, Company, and Model (tgbrg9110m000) session, click **Initialize Parameters ...**. Before the parameters and their current values in the application are entered in the Values by Parameter, Company, and Model (tgbrg9110m000) session, which functions as a temporary buffer, use the Initialize Parameters (tcmcs0295m000) session to ensure the parameters in the applications have a value.

When you carry out this session, the default implementation values are assigned to the parameters. You can only set the parameter values for the active current company. Therefore, you must ensure the active company is the company for which the parameter values must be initialized.

If a new company is created, the final step must always be the initialization of parameters. Therefore, this step is only needed for newly created companies, and not for companies that already exist.

Fig 11.28 shows the different steps in the parameter updating procedure.



Updating the parameter values

1	Initialize parameters	Set default parameter values by company
2	Read parameters	Read parameters and parameter values to buffer session
3a	Evaluate parameters setting rules	Update parameter values automatically based rules
3b	(Not shown)	Update parameter values manually
4	Print differences	Print old and new parameter values
5	Write parameters	Write new parameter values to the application by company

Import Parameters in Business Model (tgbrg9210m000)

To import a range of parameters from the master data into the Values by Parameter, Company, and Model (tgbrg9110m000) session, use the Import Parameters in Business Model (tgbrg9210m000) session.

To start this session:

- On the appropriate menu of the Values by Parameter, Company, and Model (tgbrg9110m000) session, click **Read Parameters Values ...**
- Now the parameters do not have to be imported individually.

To import a range of parameters into a project model, complete these steps:

- In the **Parameter Field** field, select the range of parameters you want to import into the project model.
- Click **Import**

Note

For parameters you imported into a project model using this session, the value of the **Set by** field in the Values by Parameter, Company, and Model (tgbrg9110m000) session is set to **Database**.

If you select the **Overwrite** check box, the parameter values already present in the project model are replaced by the parameter values you import.

Evaluate Parameter Setting Rules (Project Model) (tgbrg4230m000)

To evaluate the parameter setting rules for the combination of the project model and version you are currently working in, use the Evaluate Parameter Setting Rules (Project Model) (tgbrg4230m000) session.

To start this session:

- On the appropriate menu of the Values by Parameter, Company, and Model (tgbrg9110m000) session, click **Evaluate Parameter Setting Rules ...**
- If no parameter values have been entered in the Values by Parameter, Company, and Model (tgbrg9110m000) session, either manually or by import, you can enter the values by executing the parameter setting rules defined in the repository.

Subsequently, the parameter values that apply to the project model are entered in the Values by Parameter, Company, and Model (tgbrg9110m000) session.

To evaluate the parameter setting rules, complete these steps:

- In the **Optimization Phase** field, select an optimization phase. If you do not select an optimization phase, the parameters are set for all the optimization phases in the project model.
- In the **Company** field, select a range of companies to which the parameter values must be written.
- Click **Evaluate**

Key fields for the Evaluate Parameter Setting Rules (Project Model) (tgbrg4230m000) session

Field	Description
Test Run	If this check box is selected,, a test run is performed; therefore, the results are printed, instead of an actual update of the parameter values.
Purge Existing Model	If this check box is selected,, the parameters already present in the project model, which do not meet the conditions of the parameter setting rules, are removed from the project model.
Overwrite	If this check box is selected,, the parameters already present in the project model that meet the conditions of the parameter setting rules, get the value derived from the parameter setting rule. Therefore, if the current parameter value is different from the value derived from the setting rule, the latter value is applied.

Note

To set the values for the parameters incorporated in the parameter setting rules, do not carry out the Import Parameters in Business Model (tgbrg9210m000) session.

Print Differences in Parameter Settings (tgbrg9420m000)

To print a list which shows the differences between the parameter values entered in the Values by Parameter, Company, and Model (tgbrg9110m000) session and their current actual values in the LN applications, use the Print Differences in Parameter Settings (tgbrg9420m000) session.

To start this session:

- On the appropriate menu of the Values by Parameter, Company, and Model (tgbrg9110m000) session, click **Differences in Parameter Setting ...**

Export Range of Parameter Values by Company (tgbrg9220m000)

To update the parameter values in the LN applications based on the parameter values specified in the Values by Parameter, Company, and Model (tgbrg9110m000) session, use the Export Range of Parameter Values by Company (tgbrg9220m000) session.

To start this session:

- On the appropriate menu of the Values by Parameter, Company, and Model (tgbrg9110m000) session, click **Export Parameters from Business Model...**
- The update will only take place if you select the **Overwrite** check box.

- If this check box is cleared, and no other parameters were manually inserted after the import, no changes are made to the parameter values of the LN applications.

To write the new parameter values to the LN applications, complete the following steps:

- In the **Parameter Table** field, select the range of parameters whose values you want to write to the selected company.
- In the **Written to Database** field, narrow down the parameter selection whose values you want to update by selecting a range.
- Select the **Overwrite** check box.
- Click **Write**.

Parameter Help

To view Help information linked to a parameter, use the Parameter Help option.

Chapter 11
Model item management

11

Introduction

This chapter will discuss several features regarding utilities for the management of versions, business models, and Help texts; this includes functionality such as the copying of business models or ranges of model items from one version to another, the export and import of version dependent model items, and the creation of DEM Help files.

Version operations

You can use several sessions to carry out version operations over a range of model items. These sessions are described here.

Copy Version Data to Other Version (tgbrg1200m000)

With this session you can copy version data from a source version to a target version to create new repositories and business models from parts of repositories and business models in other versions.

In addition to the selected model items, the model items related to the selected model item are also copied. For example, if you select a project model, the business functions included in that model are also copied.

To copy data from one version to another, complete the following steps:

- In the **Source Version** field, select a version that provides the model items that must be copied to the target version.
- In the **Target Version** field, select a version into which the model items you select on the different tabs are copied.
- In the **Copy Used Model Items in Business Models** field, select one of the following options:

- **No**: No check will be carried out if there are relationships between the selected ranges of model items; therefore, all the model items that fall within the selected ranges are copied.
- **Manual select range for used model items**: Copies the model items that fall within the selection ranges. The model items that appear dimmed, if you select the **Automatic select used model items** option, are only copied if they have a relationship with one or more model items whose selection range you can always specify manually.
- **Automatic select used model items**: Copies the model items that fall within the selected ranges, including the model items whose fields appear dimmed. The latter model items are only copied if they have a relationship with one or more model items that fall within the ranges you manually selected.

- Select the ranges of model items you want to copy on the successive tabs.
- Click **Copy**

If you select the **Hide Session** check box, the session window is hidden and a progress window appears when you click the **Copy** button.

Delete Model Items (tgbrg1210m000)

To delete a selection of model items within a specific version, use the Delete Model Items (tgbrg1210m000) session.

If a model item, such as a business function, is deleted, all links that the business function has to other model items are also deleted. To delete every model item from more than one version simultaneously, use the Delete all Model Items within Multiple Versions (tgbrg1215m000) session.

To delete model items from a particular version, complete the following steps:

- In the **Version** field, select a version that provides the model items you want to delete.
- On the successive tab, select the ranges of model items you want to delete.
- Click **Delete...**

To print a report that shows the errors that occur during the deletion of the model items, select the **Print Errors** checkbox.

Delete all Model Items within Multiple Versions (tgbrg1215m000)

To delete model items from a range of versions simultaneously, use the Delete all Model Items within Multiple Versions (tgbrg1215m000) session.

You cannot specify a range of model items; this is because when you check one of the model item type check boxes, the entire range of the selected model item type present in the range of versions is deleted.

To delete a specific range of model items from one specific version, use the Delete Model Items (tgbrg1210m000) session, instead of the current session.

To delete model items from multiple versions:

- In the **Version** field, select a range of versions from which you want to delete the model items.

- In the **Repository**, **Models**, and **Workflow** group boxes, select the model items you want to delete.
- Click **Delete...**

Print Version Data Collectively (tgbrg1430m000)

To print a report that shows the details of all version-controlled model items, use the Print Version Data Collectively (tgbrg1430m000) session.

To print version data:

- In the **Version** field, select the version from which you want to select ranges of model items to print.
- On the successive tab, select the ranges of model items you want to print.
- Click **Print**

To print data such as the owner, and the date when the model item was last changed, select the **Details** check box.

To print the repository and model-specific texts linked to the model items, select the **Print Text** check box.

Print Differences between Versions (tgbrg1440m000)

To print the differences between the model items of two versions, use the Print Differences between Versions (tgbrg1440m000) session. The differences are listed in the report under the heading *Change Type*. The following change types are available:

1. *Is inserted*: The model item is only found in the target version, not in the source version.
2. *Is deleted*: The model item is only found in the source version, not in the target version.
3. *Is changed from*: The model item is found in both versions, but was modified.

Use this session to clean up a version if you select the **Corresponding Data** check box and the **Delete corresponding data in Target Version** check boxes. Cleaning up a version means you remove the unmodified model items that exist in the source version and the target version. The only restriction is that the target version must be derived from the source version.

To print the differences between two versions, complete the following steps:

- In the **Source Version** field and the **Target Version** field, select the versions you want to compare.
- On the successive tabs, select the ranges of model items from the source version you want to compare.
- Click **Print**

Key fields for the Print Differences between Versions (tgbrg1440m000) session

Field	Description
Details	If this check box is selected,, details such as the owner of a model item and the date when a model item was created, are printed.
Text	If this check box is selected,, the texts linked to the model items are compared.
Corresponding Data	If this check box is selected,, identical data in both versions is printed. If the target version is not derived from the source version, identical data cannot be printed.
Delete corresponding data in Target Version	If this check box is selected,, identical data in both versions is deleted from the target version. If the target version is not derived from the source version, identical data cannot be deleted.

Version import/export

You can copy data from one system or company to another. These sessions provide the functionality:

- Export Version Dump (tgbrg1235m000).
- Import Version Dump (tgbrg1245m000)

Export Version Dump (tgbrg1235m000)

Use the Export Version Dump (tgbrg1235m000) session to export version data to an ASCII file. You can use the ASCII file for these purposes:

1. To copy data from one system or company to another system or company.
2. To translate descriptions and texts.
3. To convert data from the current LN release to a previous release, such as Baan IVc.
4. Create backups of your DEM data.

All data in the selected version that falls within the selection parameters will be exported. To import data exported with the current session, use the Import Version Dump (tgbrg1245m000) session.

To make an export dump, complete the following steps:

- In the **Version** field, select a version that provides the model items you want to export.

- To export data from versions from which the version you have selected is derived, select the **Include Previous Versions** check box.
- In the **File** field, specify a file where the ASCII file must be written to.
- On the successive tabs, select the ranges of model items you want to export.
- Click **Export**

Key fields for the Export Version Dump (tgbrg1235m000) session

Field	Description
Compress	If this check box is selected, the ASCII file is stored in a compressed format. You cannot read the file in UNIX VI or MS Notepad. The file will be automatically decompressed when you import the file with the Import Version Dump (tgbrg1245m000) session.
Convert to	Select the Infor ERP release to which you want to convert the component information. If the export file is for use within the same LN release, you can select **No Conversion**.
Include Translation Comments	If this check box is selected,, explanatory information is inserted in the export file to identify the model items.
Exclude Rich Text Format (rtf)	If this check box is selected,, repository Help or model specific Help stored in rtf format is not exported.
Hide Session	If this check box is selected,, the session window is hidden and a progress window appears when you click **Export**.
Export Used Model Items in Business Models	Select a method to retrieve the model items used in the business models: ■ **No**: Option is not active ■ **Manual**: Select a range for used model items. Only the model items that fall within the selection ranges and linked to a business model of the selected version are exported. ■ **Automatic**: Exports all the model items used in a business model of the selected version.
Export Used Model Items in Repository	Select a method to retrieve the model items used in the repository.

Import Version Dump (tgbrg1245m000)

Use the Import Version Dump (tgbrg1245m000) session for the following purposes:

- To copy data from one system or company to another system or company.
- To import translated descriptions and texts.
- To import a backup of DEM data.

Import files are created with the Export Version Dump (tgbrg1235m000) session.

If the source version, created with the Export Version Dump (tgbrg1235m000) session, is different from the version into which you want to import the data, you must select the **Import Model Items into different Version** check box.

When the data is being imported, LN checks whether the version to be imported already exists in the target system or company. If the version does not exist, LN will ask if the version must be created.

If the import file contains data from derived-from-versions, the file was exported with the **Include Previous Versions** check box selected in the Export Version Dump (tgbrg1235m000) session. Therefore, this structure must also exist in the system or company into which the file is imported. If the import file contains data from derived-from-versions, and this data is imported into a different version than the version it was originally exported from, the DEM data versions are purged into one import version.

If an import file is exported from an older DEM software version, the DEM data is automatically converted to the new DEM data format.

If you import Baan IVc DEM data, you are prompted to specify the LN component to which the ERP session must be linked. This component, together with its applications, must be available. If an imported version is protected with a license, you need to enter the license registration.

If the data in the file is not correct, a log file will be printed with the errors and the line number in the file.

Example

- A reference does not exist
- A code or description is too long
- A table field does not exist

To import a version dump:

- In the **File** field, specify the path where the version dump is located and from where you want to import it.
- On the successive tabs, select the ranges of model items you want to import.
- Click **Import**

Key fields for the Import Version Dump (tgbrg1245m000) session	
Field	**Description**
Import Model Items into different Version	If this check box is selected,, the data must be imported into a target version that differs from the source version from where the dump was created. Specify the target version in the *Import into Version* field.
Check Data Integrity	If this check box is selected,, the information in the import file is checked for: ■ All references from a model item must exist. ■ All descriptions are checked to ensure they still comply with the domain definition on the target system; if not, they are adjusted to the new domain.
Print Errors	If this check box is selected,, errors that occur during the import are printed.
Hide Session	If this check box is selected,, the session window is hidden and a progress window appears when you click **Import**.

Import Language-Dependent Data from XML - Wizard (ttadv8920m000)

To import XML files with language-dependent components into the data dictionary, use the Import Language-Dependent Data from XML - Wizard (ttadv8920m000) session. When you import the language-dependent components, Tools will take the following actions:

- Compile the imported labels
- Convert imported domains to run-time
- Convert the imported system overhead to run-time

After the import, the imported components are ready for immediate use at run-time.

In Tools, you can define multiple labels with the same code, which have different heights, and lengths.

By default, Tools displays the longest label defined for the label code of a software component.

If an imported label is shorter than any existing labels with the same code in the VRC, the existing older label displays on the software component. To ensure the imported labels display for your VRC's software components, select the *Remove Existing Label Variants* check box in this session.

Note

If an error occurs during the import process, Tools does not compile the labels. However, to compile these labels after the import process, use the Compile Labels (ttadv1243m000) session.

For more specific information, refer to the online help of this session.

Model Operations

Print Differences between Models (tgbrg1450m000)

To print the differences between the following sets of business models, use the Print Differences between Models (tgbrg1450m000) session:

- Two project models
- Two reference models
- A reference model and a project model

You can compare business models from the same version or from different versions. The differences are listed in the report under the heading *Change Type*.

The following change types are available:

- *Is inserted*: The model item is only found in the target version, not in the source version.
- *Is deleted*: The model item is only found in the source version, not in the target version.
- *Is changed from*: The model item is found in both versions, but was modified.

To print the differences between two business models, complete the following steps:

- In the **Version** field, select a source version.
- In the **Business Model** field, select **Project Models** or **Reference Models**, depending on what you want to compare.
- Select the business model you want to compare.
- Repeat the same procedure for the target version.
- Click **Print**

If you select the **Compare Texts** check box, the repository texts and model-specific texts of the model items that occur in both business models are compared.

Translation Utilities

With the Translation utilities you can export descriptions or Help texts of model items that must be translated into languages other than the current language. After the export and translation of the files, you can import the data again.

Export Enterprise Modeler Language-Dependent Model Items (tgbrg1237m000)

To export the descriptions or Help texts of model items that must be translated into languages other than the current language, use the Export Enterprise Modeler Language-Dependent Model Items (tgbrg1237m000) session.

To import the translated descriptions and Help texts again, use the interface with the Import Language-Dependent DEM Software Components (ttadv6231m000) session.

To export language dependent model items, complete the following steps:

- In the **File for descriptions** field, specify a file in which the exported descriptions are stored. To specify a path in this field, select the **Export Descriptions** check box. Examples of descriptions are label and session descriptions.
- In the **File for Help Texts** field, specify a file in which the exported help texts are stored. To specify a path in this field, select the **Export Help Texts** check box.
- On the different tabs, select the ranges of business models and model items whose Help texts you want to export.
- Click **Export**

Note

Ensure the current modeling version is correct because it determines the information available for export.

Key fields for the Export Enterprise Modeler Language-Dependent Model Items (tgbrg1237m000) session

Field	Description
Export only Components Used In Models	If this check box is selected,, only the Help texts linked to the model items used in the selection range of enterprise-structure models and business models are exported.
Export Components from Previous Versions Also	If this check box is selected,, the Help texts linked to the model items in the derived-from versions of the current modeling version are also exported.
Include Translation Comments	If this check box is selected,, each model item is accompanied by extra information that indicates what the model item is. The information is located at the end of the line, such as role, status, etc.

Chapter 12
Run-time model control

12

Introduction

Run-time model control provides the functionality to distinguish between a modeling environment and a final user interface as provided by the Process Browser. You use the run-time model control sessions to determine which project models are applicable to your organization at a certain point in time. The project models that you select as run-time project models determine which business processes and activities users will have in their Process Browsers.

Run-time control

Runtime Version, Project Model and Optimization Phase (tgbrg0105m000)

To create and maintain the run-time project models for a combination of a company and a version, use the Runtime Version, Project Model and Optimization Phase (tgbrg0105m000) session.

To define a runtime version, project model and optimization phase:

- In the **Company** field, click *New group* and select the company in which the project models are stored that you want to use at run-time.
- In the **Version** field, select a version that provides the project models that can be assigned as the run-time project model.
- In the **Project Model** field, select a project model that provides the business processes for the Process Browser.
- Click **Save**.

Key fields for the Runtime Version, Project Model and Optimization Phase (tgbrg0105m000) session

Field	Description
Default for Companies Without Run-Time Project Models	If this check box is selected,, the run-time project models in this company are for use in all companies for which no run-time project models are defined. You can only select this check box if you click the *New group* button.
Optimization Phase	The optimization phase used at run-time. Combined with the run-time version and run-time project model, it determines the business processes available in the Process Browser.
Main Project Model	If this check box is selected,, this is the main default run-time project model in case more than one run-time project model is defined for a company.

Note

Only one main run-time project model can be defined per company. If a run-time project model is for use in all companies, you only need to select the **Default for Companies Without Run-Time Project Models** check box, instead of inserting it in all companies.

To change to another project model linked to your current company, on the appropriate menu, click *Change Project Model*. The project model that is started is displayed in a new Process Browser window. The original Process Browser Window also remains open; this way, you can use more than one project model simultaneously.

Multi-logistic company

Multiple runtime project models dependent on the same logistic company will be solved by storing one or more project models per company [DS Org. Modeling].

Because of the multiplicity of companies and project models per logistic company, the default runtime company and default project model for this company will have to be stored in the DMB user settings. To use different project models per company, an entry must be created to allow the user to switch to another project model. This project model will be opened in a new instance of the DMB.

When the user changes the runtime company, and the selected project model is different from the one currently displayed in the DMB window, another instance of the DMB tree will be started.

The runtime version, project model, and phase are stored per company instead of by user. Only the current modeling version is still stored by user.

Starting an end user desktop using the Dynamic Menu Browser (DMB)

When an end user interface is started, the DMB uses the defined organization model. To create an end user interface, using the organization model:

- Find the runtime project model, the runtime current version, and the current phase for the current company the user is in. This can be the Default Project Model from the Baan User DEM Settings, or the main Project Model from the Runtime Project Models by Company. When the Default Project Model is not found within the current company, a message is given and the main Project Model for the current company is used.
- Find the employee linked to the LN User and the current User DEM Settings.
- Check whether the employee is linked to the current project model and optimization phase; if not linked, a message is given and the process is aborted.
- To find the roles linked to the employee, use the runtime current version.
- Find the business processes the user is authorized for according to his roles. This check has to be done in the repository and within the current project model because the authorization can be restricted within the project model.

Chapter 13
Data Models

13

Introduction

The data model is the fourth type of diagram you can model in the Modeler. A data model describes the permanent storage components, and their structures, on multiple abstraction levels.

Entity relationship modeling aims to show the meaning and relevance of data for an organization. The main aim of entity relationship modeling is to document the LN application databases.

Part of the ERM-module is the Modeler. With this modeler you can edit entity relationship diagrams and graphically represent the data models. You can create a new conceptual database design or document an existing database.

The data model supplies information about the physical or logical data model of the package combination to which the enterprise model applies. The data model does not yet influence the configuration of the LN software.

The data model is located within the enterprise modeler environment; functionally, it is a subcomponent of the enterprise model.

In terms of modeling, the data model is directly created without placing it in a reference or project model, and without using a repository.

Introduction to Entity Relationship Modeling

Entity Relationship Modeling gives an insight to the LN application databases and the way in which they are interrelated.

Entity Relationship Modeling is composed of two main building blocks:

- Entity types
- Entity relationships

These building blocks are interrelated and used in entity relationship diagrams to show the relationships between the permanent storage components. Together with the other components listed below, they let you illustrate the diversity of relationships between the different databases. A group of related diagrams make up an entity relationship model.

- **Entity type**
  A person, place, thing, or concept that you want to record information about. An entity type is a group of entities with common attributes and can be part of a diagram, such as `Trucks`.
- **Entity**
  A single occurrence of an entity type; a fact relevant to the company, and about which information is permanently stored. For example: `Truck-A` and `Truck-B`.

Three kinds of entities exist:

- **Logical entity**
  Entities that have a meaning to the real world and are comprised of one or more physical entities; they are defined on a higher abstraction level.
- **Physical entity**
  Database tables of the LN application.
- **Associative entity**
  An entity used to link other entities. An associative entity type is only used when there is a many-to-many relationship between two entity types.

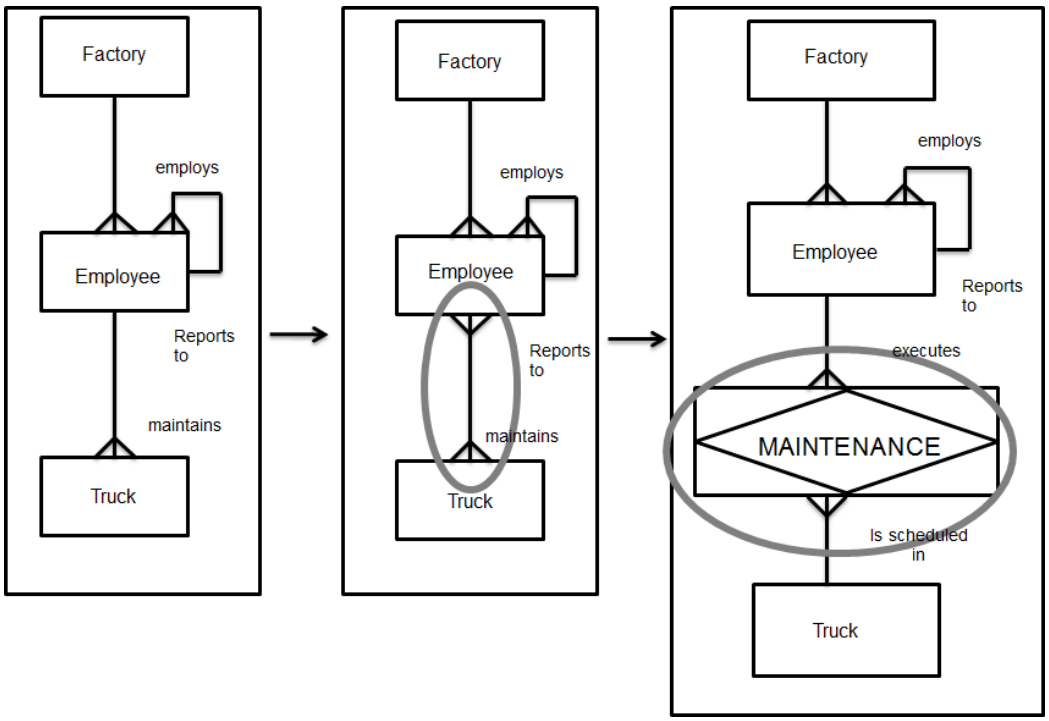
Example

There could be an M:N relationship between `EMPLOYEE` and `TRUCK` regarding maintenance.

This relationship does not show which `EMPLOYEE` maintains which `TRUCK`.

There are also other attributes to be considered, such as time spent, part no. and so on.

As a result of the ambiguity regarding the Many-to-many relationship, the associative entity type `MAINTENANCE` can be defined. (See figure 2).



Associative entity type

- **Attribute**
  A fact or non-decomposable piece of information describing an entity type; for example, Number of wheels.
- **Attribute value**
  The value of an attribute; for example, 4 wheels.
- **Relationship**
  A reason of relevance for associating entities of one or two entity types.
- **Cardinality**
  A specification of the number of possible entities for each entity type of a pairing.

The three types of cardinality are as follows:

- **One-to-One (1:1)**
  A one-to-one relationship. Only one instance of entity type B can be associated with only one instance of entity type A.
- **One-to-Many (1:N)**
  A one-to-many relationship. Multiple instances of entity type B can be associated with only one instance of entity type A.
- **Many-to-Many (M:N)**
  A many-to-many relationship. Multiple instances of entity type B can be associated with multiple instances of entity type A and vice-versa.

Within Entity Relationship Modeling, there is no real difference between logical and physical entities.

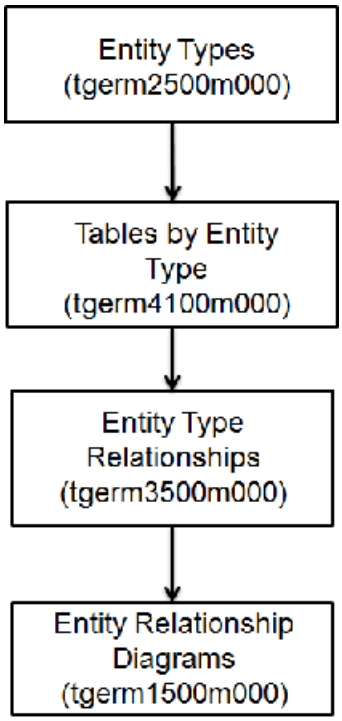
The Entity Relationship Modeling procedure

There are two different approaches for modeling databases:

- The first is the top down approach, which has to be used when physical entity types, entity relationships and entity relationship diagrams have not yet been created. Therefore, you have to manually create and define all entity types and relationships.
- The second is reverse engineering, which is a quick way to model entity relationship diagrams because you can select existing database/table definitions for which a diagram will be created automatically. Reverse engineering can only be used in the case of LN.

Carrying out the Entity Relationship Modeling procedure results in a model that shows the relations between different databases.

Figure 14.2 shows the steps in the Entity Relationship Modeling top down procedure.



The Entity Relationship Modeling top-down procedure

Entity Types (tgerm2500m000)

To create the entity types, use the Entity Types (tgerm2500m000).

To define an entity type, complete the following steps:

- In the Entity Types (tgerm2500m000) session, click *New*
- In the **Entity Type** field, specify an id for the entity type.

- Click **Save**

Key fields for the Entity Type Details (tgerm2100s000) session

Field	Description
Owner Package	The package to which the entity type is related.
Owner Module	The module to which the entity type is related.
Link to Diagram	The entity-relationship diagram into which an entity type is decomposed. At a different level in the DEM-Tool, you can see the entity-type relationship between the current entity type and other entity types.
Entity Type Category	If you select this check box, the entity type is a physical entity type or a logical entity type related to the Baan package.
Associative Entity Type	If you select this check box, the entity type serves as a link between two other entity types that have a many-to-many relationship between them.

Tables by Entity Type (tgerm4100m000)

To select one or more tables from the Table Definitions (ttadv4526m000) session, and to link those tables to the selected entity type, use the Tables by Entity Type (tgerm4100m000) session.

To start this session:

- On the appropriate menu of the Entity Types (tgerm2500m000) session, click **Link ERP Tables to Entity Type...**

One entity type can be linked to several tables. The interdependent relations between these tables are shown at different levels in the Modeler.

Entity Type Relationships (tgerm3500m000)

To list and define entity type relationships, use the Entity Type Relationships (tgerm3500m000) session. The relationships listed in the Entity Type Relationships (tgerm3500m000) session have been established between the entity types listed in the Entity Types (tgerm2500m000) session.

To define entity type relationships, in the Entity Type Relationship Details (tgerm3100s000) session, select the entity types between which relationships are to be established. You can also define the cardinality of the relationship between the selected entity types.

In the case of an M:N relationship, an associative entity type can be created, and a table can be selected from the Table Definitions (ttadv4526m000) session to serve as a link between two entity types.

To define a relationship between two entity types, complete the following steps:

- In the **Data Entity Relationship** field, specify an ID for the relationship.
- In the **FromEntity Type** field, select the first entity type involved in the relationship.
- In the **ToEntity Type** field, select the other entity type involved in the relationship.
- In the **Min Cardinality From - To** field, specify the number of possible entities for each entity type of a pairing for the entity type you selected in the **FromEntity Type** field.
- In the **Min Cardinality To - From** field, for the entity type you have selected in the **ToEntity Type** field, specify the number of possible entities per entity type of a pairing.
- Click **Save**

Key fields for the Entity Type Relationship Details (tgerm3100s000) session

Field	Description
Relationship is Sub-type	If this check box is selected,, the entity-type relationship is between a subtype and a supertype entity type; it is used to indicate that the supertype's attribute also applies to the subtype.
Physical Database Relation exists	If this check box is selected,, the entity-type relationship is between entity types that have tables from the LN data dictionary linked to them.
Associative Table	An LN table used to link two entity types that have a many to many relationship between them
Infinite	If this check box is selected,, the maximum to-from relationship is infinite.

Entity Relationship Diagrams (tgerm1500m000)

To create and maintain the entity-relationship diagrams, use the Entity Relationship Diagrams (tgerm1500m000) session. An entity-relationship diagram is a graphical design of the relational data model structure. The diagram shows a multilevel structure that consists of entity types and entity-type relationships.

To create an entity-type relationship diagram, complete the following steps:

- In the **Entity Rel. Diagram** field, specify an ID for the entity relationship diagram.

- In the **Owner** field, select the LN user who created or is responsible for the entity relationship diagram.
- Select who is authorized to modify the diagram by selecting one of the check boxes under **To be modified by**.
- Click **Save**

The data model in the Modeler

Next to the Enterprise Structure Model, the Business Function Model, and the Business Process Model, the data model is the fourth type of diagram you can model in the Modeler.

When you create or modify an entity relationship diagram, the following buttons are available in the Modeler.

An entity type represents a cluster of associated data. There are two alternative entity types. To change the entity type, right-click an entity type, point to *Type*, and click one of these two options:

- **Normal**
  The logical data set (table)
- **Associative Entity Type**
  This is an entity type used to represent a many-to-many relationship between two entities. Normally, a table is used to create a many-to-many relationship.

To link a LN table to an entity type, complete these steps:

- Right-click an entity type.
- Click **Table**
- In the window that opens, click **Insert**
- In the Table Definitions (ttadv4526m000) session, select a LN table.
- Click **OK**.

To link an underlying entity relationship diagram to an entity type:

- Right-click an entity type.
- Click Properties
- In the Entity Types (tgerm1130s000) zoom in the Decomposed Diagram field.
- In the Entity Relationship Diagrams (tgerm1500m000) session, select an entity relationship diagram.
- Click **OK**

A relationship defines a relation between two entity types.

The cardinality of a relationship defines the expected number of related occurrences for each of the two entity types.

To change the cardinality of a relationship:

- Right-click a relationship and point to Cardinality.

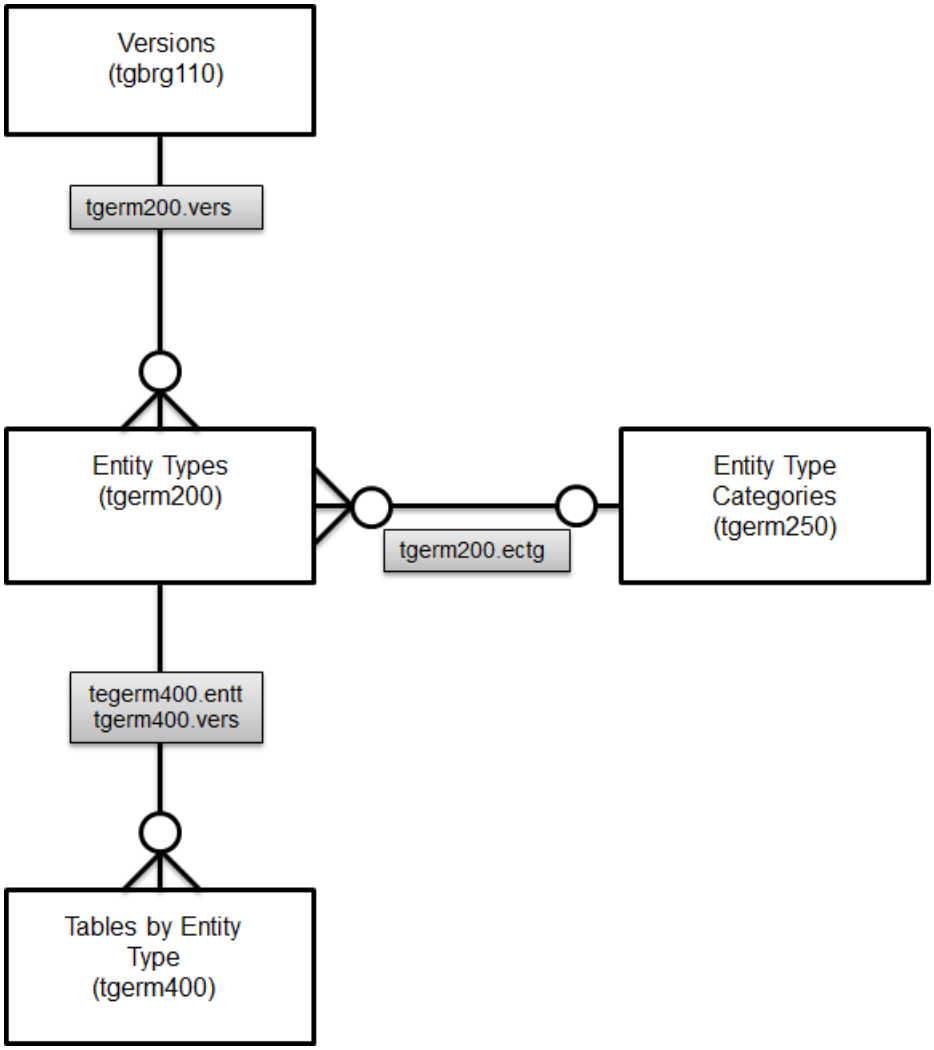
- Select one of the options; One to One, One to Many or Many to Many.

You can show that one way or both ways of the relationship are optional. To make a relationship optional:

- Right-click a relationship.
- Depending on which part of the relationship you want to make optional, click either *Optional From –To* or *Optional To – From*

The subtype relationship is a relationship between a subtype and a supertype; it is used to indicate that the attributes of the supertype also apply to the subtype.

The diagram shows the relationships between versions, entity types, entity type categories, and database tables in the Modeler.



The relationship between tables, entity types and versions as shown in the Process Modeler Workbench

Sessions used in the Modeler

The following sessions are only accessible from the Modeler:

- **Entity Relationship Diagram Properties (tgerm1102s000)**
  Use this session to view or change the details of an entity relationship diagram.
- **Create Entity Relationship Diagram (tgerm1103s000)**
  Use this session to define the details of an entity relationship diagram when you create a new diagram from the editor.
- **Entity Types (tgerm1130s000)**
  Use this session to change entity type details or replace the selected entity type by a new one. In this session, you can also link a child diagram to an entity type by zooming to the Entity Relationship Diagrams (tgerm1500m000) session.
- **Entity Type Relationships (tgerm1140s000)**
  Use this session to change entity type relationship details such as cardinality and relationship category. This session also lets you include an associative table in the diagram.

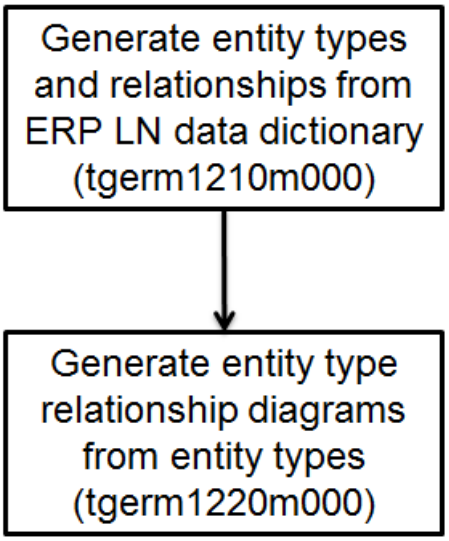
To modify the fields and indices of the tables linked to an entity type, double-click the entity type icon, or right-click an entity type, point to **Edit**, and click **Tables**. To modify the field or index data, in the Window that appears, click **Show Table Fields** icon or **Show Table Indices**.

The reverse-engineering procedure

Instead of creating entity relationship diagrams from scratch, you can use reverse engineering when you create a data model consisting of LN tables.

Reverse engineering lets you use information from an existing database. You can either select entity types that have not been used before in entity relationship diagrams, or generate a new set of entity types for which entity relationships or entity relationship diagrams already exist.

Figure 14.8 shows the two sessions that make up the procedure for reverse engineering.



The reverse engineering procedure

Generate Entity Types and Relationships from ERP Data Dictionary (tgerm1210m000)

To generate entity types and entity-type relationships by reverse engineering, use the Generate Entity Types and Relationships from ERP Data Dictionary (tgerm1210m000) session.

Only LN tables entity types can be created by means of reverse engineering.

To start this session:

- On the appropriate menu of the Entity Types (tgerm2500m000) session, click **Generate Entity Types from ERP DD...**; alternatively, on the appropriate menu of the Entity Type Relationships (tgerm3500m000) session, click **Generate Relationships from ERP DD...**

The newly generated entity types and entity relationships can be used in existing or new entity-relationship diagrams.

To generate entity types and relationships from LN tables:

- In the *Table* fields, select the range of tables for which you want to create entity types, and between which you want to establish relationships.
- To create the relationships between the selected LN tables, select the **Generate Entity Type Relationships** check box.
- To create entity types for the selected range of LN tables, select the *Generate Entity Types* check box.
- In the **Store into Version** field, select a version in which the generated entity types and entity-type relationships are stored.
- Click **Generate**

Generate Entity Relationship Diagrams from Entity Types (tgerm1220m000)

To select a range of entity types for which you want to create entity-relationship, use the Generate Entity Relationship Diagrams from Entity Types (tgerm1220m000) session.

To start this session:

- On the specific menu of the Entity Relationship Diagrams (tgerm1500m000) session, click **Generate ERD's from Ent. and Rela.**
- For each entity type, an entity-relationship diagram is added in the Entity Relationship Diagrams (tgerm1500m000) session.

To create entity relationship diagrams from entity types and entity type relationships, complete these steps:

- In the **Entity Type** field, select the range of entity types for which you want to create entity type relationships.
- In the **Store into Version** field, select the version in which the entity type diagrams must be stored.
- Click **Generate**

Note

If you select the **Overwrite** check box, entity relationship diagrams that already exist in the selected version are overwritten by the newly created diagrams.

Definitions

Language Codes

This list shows the languages codes:

Language codes

Code	**Language**	Code	**Language**	Code	**Language**
1	Dutch	a	Arabic	E	Estonian
2	US English	b	Bulgarian	H	Hrvatski (Croat)
3	German	c	Catalan	L	Latvian
4	French	d	Polish	P	Portuguese (European)
5	Spanish	e	Elladi (Greek)	R	Russian
6	Italian	f	Finnish	S	Slovenian
7	Danish	h	Hebrew		
8	Norwegian	j	Japanese		
9	Swedish	k	Korean		
		m	Magyar (Hungarian)		
		n	Chinese Traditional		
		o	Chinese Simplified		
		p	Portuguese (Brazilian)		
		q	Canadian French		
		r	Romanian		
		t	Czech		

	v	Lithuanian
	z	Turkish

Appendix A
Appendix

A

appropriate menu

Commands are distributed across the **Views**, **References**, and **Actions** menus, or displayed as buttons. In previous LN and Web UI releases, these commands are located in the *Specific* menu.

Index